Tellsonian Lectures
ON
EXCISIONAL SURGERY OF THE JOINTS FOR DISEASE.

Delivered before the Medical Society of London.

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LECTURE II.—Part II.

HIP-JOINT (concluded).—ANKLE-JOINT.—TARSAL BONES.

I may now give a summary of my own series of hip-joint cases, as affording typical *illustrations* of the conditions of disease which are appropriate for excision, and the results, proximate and permanent, in each case; an analysis being appended with reference to the several questions of importance pertaining to excision of the hip-joint for disease.

I have drawn up these cases from clinical notes carefully taken—in the first two, by Mr. John B. Foster; in the second two, by Mr. Marriott, formerly house-surgeons; and in two of the remaining four, by Mr. T. C. Murphy, senior house-surgeon at the Royal Free Hospital.

Typical Cases of Hip-joint Excision.

Case 1.—William M——, aged twenty-six. Admitted into the Royal Free Hospital on March 28th, 1864. Scrofulous caries of the left femur; the head and the articular cartilage entirely destroyed; the neck, great trochanter, and one inch of shaft involved, with one inch more of cancellated structure; similar disease of acetabulum, and horizontal ramus of pubes; dislocation on dorsum ilii with abscess; constitutional condition, advanced hectic; disease of traumatic origin; duration of disease, four years; treatment, three years. Excision of four inches of femur, and one inch of cancellated structure. Recovery, with a freely movable joint and a useful limb, in three months. Permanent result known after two years and a half.

Case 2.—John R——, aged sixteen. Admitted into the hospital on July 22nd, 1863. Caries of the left femur; its neck, great trochanter, and head involved, with circumferential destruction of the articular cartilage, and disease in the shaft to two inches in extent, with one inch more of cancellated structure; similar disease of acetabulum; dislocation on dorsum ilii with abscess; constitutional condition, advanced hectic; immediate cause, cold; duration of disease, one year. Excision of four inches and a half of femur, and the one inch of cancellated structure. Recovery, with a freely movable joint and a useful limb, in two months and a half. Result known to be permanent after five years.

Case 3.—George C——, aged fifteen. Admitted into the hospital on June 9th, 1864. Caries of right femur; its head and neck entirely destroyed; great trochanter and a small piece of the shaft involved; similar disease of acetabulum; dislocation and abscess on dorsum ilii; health good; disease of traumatic origin; duration of disease, two years. Excision of one inch and three-quarters of femur. Recovery, with a freely movable joint and a useful limb, in three months.

Case 4.—Edward M——, aged eight. Admitted into the hospital on June 10th, 1864. Caries of left femur; its head and neck destroyed; similar disease of acetabulum; advanced hectic; immediate cause, cold; duration of disease, five years. Excision of two inches of femur. Recovery, with a movable joint and useful limb, in two months.

Case 5.—Jane L——, aged five. Admitted into the hospital on March 4th, 1867. Caries of right femur; its head and neck destroyed; similar disease of acetabulum; health good; of traumatic origin; three years' duration; two and a half years' treatment. Excision below great trochanter. Recovery, with a movable joint and useful limb, in four months. Result known to be permanent after three years.

Case 6.—Catherine R——, aged five. Admitted into the hospital on Oct. 31st, 1866. Scrofulous caries of left femur; its head and neck destroyed; similar disease of acetabulum; *dislocation* and *abscess* on dorsum ilii; advanced hectic; disease apparently of traumatic origin; one year and eight months' duration and treatment. Excision below great trochanter. Recovery, with a movable joint and useful limb, in three months.

For the particulars of this case I am indebted to my colleague, Mr. John D. Hill, then senior house-surgeon in the hospital.

In two other cases the essential particulars were similar to one or other of the above series.

Analysis of the Cases.

The following facts respecting the foregoing cases of hip-joint disease and excision seem specially worthy of notice.

1. *Conditions of disease.*—Caries in all cases, with destruction of the femoral articular cartilage; entirely in 1, 3, 4, 5, and 6, or in five cases; circumferentially only in Case 2. Extent of bone diseased was the head and neck in each case; with the great trochanter and portion of the shaft in Cases 1, 2, and 3; and an extra portion of cancellated structure of the shaft in Cases 1 and 2; caries of the acetabulum to some extent in all the cases, and of ramus of pubes in Case 1; dislocation on dorsum ilii in Cases 1, 2, 3, and 6, or in four out of the six cases.

2. *Immediate cause.*—Injury in Cases 1, 3, 5, and 6; cold in Cases 2 and 4.

3. *Constitutional condition.*—Advanced hectic in Cases 1, 2, 4, and 6, or in four of the six cases; health good in Cases 3 and 5.

4. *Previous duration of disease.*—Four years, one year, two years, five years, three years, one year and eight months. *Previous duration of treatment.*—Case 1, three years; Case 5, two years and a half; Case 6, one year and eight months.

5. *Age and sex.*—Age: 26, 16, 5, 8, 5, and 5 years. Sex: Four males and two females.

6. *Operation.*—*Incision* T-shaped in all the cases. *Portions of bone* excised: (1) Four inches of femur and one inch of cancellated structure scooped out; (2) four inches and a half of femur, and one inch of cancellated structure scooped out. In both these cases the medullary canal was entered. (3) One inch and three-quarters of femur; (4) two inches of femur; (5) section just below great trochanter; (6) section just below great trochanter. Small portions of the acetabulum were scooped out in each case. *Hæmorrhage* inconsiderable in all the cases. No ligatures required. Silk sutures and water-dressing applied in all the cases. *No splint* was used in any of the cases, the section of the femur being left free to form a fibrous anchylosis.

7. Primary union ensued in all the cases except the first, wherein the wound healed by granulation.

8. *Results.*—Firm fibrous anchylosis, with a movable joint and useful limb in all the cases. Period of union, average three months.

9. Result known to be permanent in Case 1, after two years and a half; in Case 2, after five years; in Case 5, after three years.

ANKLE-JOINT.

The operation of excision with regard to the ankle-joint has been confusedly described in surgical works as signifying the removal of any portion of the foot, whether pertaining to the ankle-joint or not; in the operations originated by Liston, Wakley, and Teale. But, by excision of the ankle-joint, I mean the removal of the articular surfaces of the bones which enter into the formation of this joint—namely, the lower articular ends of the tibia and fibula and the upper portion of the astragalus.

This operation, first performed for *injury* by Hippocrates, and revived by Hey, of Leeds, in 1766, was first performed for *disease* by Moreau, senior, in 1792; then by Moreau, junior, in 1796; next by Mulder, in 1810; and probably by Champion, in 1813. But the credit of introducing the operation into British surgery is due to Mr. Hancock, who excised the ankle-joint for disease in February, 1851. The operation has since been resorted to by Professor Humphry, of Cambridge, in four cases, and by other surgeons, including myself.

Conditions appropriate for excision.—Disease of the ankle-joint, according to Mr. Hancock, frequently commences in the synovial membrane, and extends to the articular surfaces, thus, secondarily, involving the bones. But it may also commence, as scrofulous disease, in the cancellous tissue of the long bones—tibia and fibula, or of the astragalus, or of all three bones. In the former condition, the

affected portion of the articular surfaces may be removed with safety and advantage. In the latter condition, excision is not inappropriate.

Other and different opinions are held by some surgeons of repute, as by Mr. Furneaux Jordan, of Birmingham, both with regard to the origin of disease of the ankle-joint and the propriety of excision. That disease rarely extends from the synovial membrane, but begins in the cancellous tissue, either of the extremities of the tibia and fibula, or in that of the astragalus; and, it is said, necessarily affects the whole of that bone. In the one condition, excision of the extremities of the long bones, as the local source of the disease, is said to be inadmissible; while, in the other condition, the whole bone—astragalus—must be excised. The former contra-injunction is plainly at variance with the established practice of excision in disease of the knee-joint, under strictly analogous circumstances—when the end of the femur, or head of the tibia, is the seat of disease. Excision of the extremity of either of these long bones is not inadmissible, but only, perhaps, less favourable in scrofulous disease of the cancellous tissue.

The fair inferences from this diversity of opinion respecting the diseased conditions of the ankle-joint for which excision is appropriate, would appear to be:—

(1) When disease commencing in the synovial membrane has extended to and destroyed the articular surfaces of the tibia and fibula, that of the astragalus, or of both opposed surfaces.

(2) When disease, having the same articular consequences, commenced in the cancellated tissue either of the long bones or of the astragalus, provided it be limited to part of this bone—its upper articular portion.

(3) Whether the disease originated in the synovial membrane or in the articular cancellated tissue, resulting in destruction of the cartilages without anchylosis, excision should be resorted to *before* the supervention of constitutional exhaustion.

Operation.—Hancock's description of excision of the ankle-joint as first performed by him in England (1851) is as follows:—"I commenced an incision behind and about two inches above the external malleolus, carrying it forwards beneath that process across the front of the joint, and terminating about two inches above and behind the inner malleolus. This incision included the skin, without implicating the tendons or their sheaths. The flap thus formed was dissected up, and the peronei tendons were detached from the groove behind the fibula and cut through, as was the external lateral ligament close to the fibula, with a pair of bone-nippers. I next divided the fibula about an inch and a half above its inferior extremity, and, cutting through the inferior tibio-fibular ligaments, detached the external malleolus. Turning the leg on to its outer side, I cut through the internal lateral ligament, carefully keeping the knife close to the end of the tibia to avoid the posterior tibial artery. The tendons of the tibialis posticus and flexor communis were then detached from the groove behind the internal malleolus, and, taking the foot in both hands, Mr. Avery holding the leg, I dislocated the foot outwards, thus bringing the end of the tibia with the internal malleolus prominently through the wound. These were removed with a common amputating saw, applied half an inch above the horizontal articulating surface of the tibia, the soft parts being protected by a spatula; the upper articulating surface of the astragalus was also removed by a metacarpal saw, held horizontally. The foot was then restored to its proper position, the cut surface of the astragalus being adapted to the cut surface of the tibia; and the wound having been closed by sutures, except on the outer side, left open for the free escape of discharge, the leg was placed on an external splint, having an opening corresponding to the wound."

The parts divided by this operation were—the skin, peronei tendons, internal and external, lateral and inferior tibio-fibular ligaments, and the articular surfaces of the bones. In subsequent operations the tendons were preserved entire. In no instance have the tibial arteries, anterior or posterior, been wounded; and never has it been necessary to apply a single ligature.

Lateral incisions alone, without the anterior communication, have since sufficed. This was my mode of operation in two cases.

The *after-treatment* of ankle-joint excision should be conducted in accordance with the principles laid down respecting the excision of other joints, regard being had to the kind of anchylosis necessary for the use of the limb. The fixed position of the foot must be maintained during the period requisite to secure a firm anchylosis of the osseous surfaces made by excision—the lower ends of the tibia and fibula, and the upper surface of the astragalus; thus to adapt the foot for support and progression. The wounds, one on either side of the ankle, are dressed from day to day, but the splint should be removed and reapplied *very seldom*. In my own excisions of the ankle-joint I have fixed the leg on a flat back-splint, provided with a foot-piece; thus secured, displacement can scarcely occur, and the side wounds are freely accessible for cleansing and dressing. Eventually a starched bandage may be applied; and the foot being slung from the neck, the patient gets about on crutches as the foot is gradually brought into use.

RESULTS.—Excision of the ankle-joint for disease presents some most interesting results, both in relation to the mortality of this operation and the state of the foot, with the probability of secondary amputation; both these aspects of the operation being considered also as compared with amputation of the leg, and with Syme's and Pirogoff's operations of amputation at the ankle-joint, severally, for disease.

For certain valuable statistics bearing on these important questions I am indebted to Mr. Hancock, who liberally placed at my disposal the manuscript of his lectures at the Royal College of Surgeons.

I. *In relation to Mortality.*—The results of 32 cases of excision of the ankle-joint for *disease* have been collected by Mr. Hancock; all that he could find recorded in the practice of British surgeons. Of these 32 cases, 7 died—about 1 in 5, or a fraction above 21 per cent. But of the 7 deaths, 4 are reported to have died of consumption, one suffering from that disease at the time of operation; while another died of secondary syphilis. This reduces the average mortality to 1 in 16, or about 6 per cent. Of my own two cases, both lived.

Author's Collection.

(1) Charing-cross Hospital; period 1858–65. (Per Mr. Hancock.) Number of cases, 6; recoveries, 6. Amputation or re-excision in 1 case, with recovery.

(2) Royal Free Hospital; period last five years. Number of cases, 4; recoveries, 4. Syme's amputation in 1 case, with recovery.

(3) Chalmers' Hospital, Edinburgh; period last six years. (Per Mr. P. H. Watson.) Number of cases, 4; recoveries, 4.

(4) St. Bartholomew's Hospital; period 1866–70. (Per Mr. Callender.) One case; recovery.

(5) St. Thomas's Hospital; period 1866–70. (Per Mr. F. Churchill.) One case; fatal.

(6) London Hospital; period last five years. (Per Mr. J. McCarthy.) One case; recovery. Amputation or re-excision afterwards; recovery.

Guy's, King's College, Westminster, St. Mary's, and Great Northern Hospitals; Liverpool Royal Infirmary; and Royal Albert Hospital, Devonport; period, each, last five years. No cases.

Compared with the mortality of amputation.—(a) Amputation of the *leg* for disease, in civil surgery, has a mortality of 26 per cent.; whereas in the results of ankle-joint excision for disease the mortality, already quoted, has been only 6 per cent.: 20 per cent. difference in favour of excision. (b) Amputation at *ankle-joint*:—Syme's amputation: Of the whole number of ankle-joint amputations—219, as collected by Mr. Hancock,—in 144 amputation was performed for disease (caries); of these 10 only were fatal, or somewhat less than 1 in 14; and, as 3 died of phthisis, 1 of diarrhœa, and 1 a year after operation, 5 deaths only remain, or a reduced mortality of 1 in 28. Pirogoff's amputation: 58 cases of this amputation represent the whole number performed by British surgeons of which Mr. Hancock has been able to gather the particulars. Nearly 100 cases reported by Pirogoff as having been performed in Russia are not available for statistical comparison. Of the 58 cases, 5 were fatal, or about $9\frac{1}{2}$ per cent. Of the remaining 53 recoveries, in 29 the operation had been resorted to for caries.

II. *State of the Foot.*—Of the 32 cases operated on by excision of the ankle-joint, 21 recovered with good useful limbs.

Secondary amputation after ankle-joint excision.—Of the 32

cases, 2 only underwent secondary amputation, and both recovered.

Compared with secondary amputation after amputations of foot. — (*a*) After Syme's operation: Of the 144 cases submitted for caries, 9 underwent secondary amputation; but, of these, 1 was a confirmed drunkard, 1 had been primarily operated on for traumatic gangrene, 1 two years previously for an accident, and in the remaining 2 the disease is not stated. (*b*) After Pirogoff's operation: Of the whole 58 (for disease and injury), 5 only suffered secondary amputation, but in 4 of these the primary operation had been performed for caries.

Comparing, therefore, these two amputations of the foot, Mr. Hancock observes: "As regards the occurrence of suppuration, the percentage of deaths, of recoveries and periods of recovery, and secondary amputations, the evidence of British surgery is in favour of Syme's operation, whilst as regards sloughing of the flap it is decidedly in favour of Pirogoff's proceeding. Syme's amputation appears to be unquestionably the best for disease, and Pirogoff's for the accidents of civil life, since by it we preserve an increased length of limb."

TARSAL BONES.

Excision of the Tarsal Bones comprises certain recognised operative procedures which correspond to the lines of the osseous articulations; as removal of the astragalus, or of the os calcis. But the plan and performance of excisional operations on the foot should not be restricted by these anatomical limitations. The modification of these operations on the foot, according to the kind and extent of the disease, well illustrates the guiding principle of excisional surgery; and this application of the general principle I have laid down is specially advocated by Mr. Hancock, in the lectures already referred to.

The *conditions of disease* for which excisional operations on the foot may become appropriate are similar to those which affect other bones and their articulations; namely, the destructive result of inflammation, and especially in the form of caries. According to the extent of such disease, partial or complete excision of any one or more tarsal bones may be necessary. I proceed to describe the various operations, and to estimate their value by their results.

1. *Excision of astragalus.*—*Partial* excision of the astragalus, for disease, was first attempted by Severin in 1646, and in England by Ramsay in 1792. Since that time it has been performed by other surgeons, but in a comparatively few authentic cases. *Complete* excision, for disease, was first performed by Mr. Busk in 1850. Three other cases only have since been recorded in England; one each by Mr. Erichsen, Mr. Holmes, and the late Mr. Statham. An incision along the outer and anterior aspect of the ankle will expose the bone; its neck should then be severed with strong cutting pliers; and, some space having been thus made, the bone may be drawn out of its bed by the lion forceps, the knife being used to detach its ligamentous connexions, but applied cautiously towards the inner side of the joint in proximity to the plantar arteries. It may be necessary to extirpate the bone piecemeal when its substance breaks down in a carious state; it must then be gouged out.

Some of the *anterior* tarsal bones may have to be removed with the astragalus. Liston's operation on the foot—as the excision thus extended, in a noted case, might be named—consisted in the removal of the astragalus, scaphoid, and two cuneiform bones. The case is reported in the *Edinburgh Medical and Surgical Journal* of January, 1821.

Results.—*Of partial* excision of the astralagus, in 27 cases recorded, 8 were operations for disease (caries); 5 terminated well; 1 ended in anchylosis, and in 2 the result was not stated. *Complete* excision: In 109 cases of complete excision of the astragalus, 14 were operations for *disease*, 13 being for caries, and 1 for necrosis. Of the 13 cases 1 died, 8 recovered with good and useful limbs, 2 underwent secondary amputation two years after excision, and both recovered; in 2 the results were doubtful. The case of excision for necrosis did well.

(2) *Excision of os calcis.*—*Partial* excision seems to have been first performed for injury, in the removal of a musket-ball from the os calcis, by Formius, as long since as the year 1669.

Complete excision was first performed, and for disease (necrosis), by M. Robert of Prague, in 1837. The second operation, and the first in this country, was by Mr. Hancock, in May, 1848. The first successful case in England was by Mr. Greenhow, of Newcastle, in the same year, 1848; and two equally successful cases of complete excision, in the hands of that surgeon, followed also in that year. Since then the operation has been practised, with varying success, by other surgeons, principally by Sir William Fergusson, Teale (Leeds), Humphry (Cambridge), Cann (Hereford), Pemberton (Birmingham), Potter (Newcastle), Mr. Holmes, Mr. Erichsen, and by myself.

The operation is thus performed:—The patient lying on his face, with the sole of the foot uppermost, an incision with a stout bistoury may be commenced at the calcaneo-cuboid articulation, just above the sole of the foot, and carried backwards round the heel forwards to an equal point on the inner side. This *sole-flap* of integument is raised forwards from the under surface of the os calcis, and in its whole thickness down to the bone, so as to form a good cushion; a slight perpendicular incision is made opposite the tendo Achillis into this horizontal incision, and with a little reflection of the integument to either side the tendon is severed from its insertion. The knife is then entered posteriorly over the upper surface of the os calcis, and the strong interosseous ligament connecting it with the astragalus is divided, somewhat as an oyster is opened. The bone can then be raised, and its lateral attachments being cleared by a gentle application of the knife, the calcaneo-cuboid articulation is opened, and the bone completely detached.

Or, an incision may be made, as for Syme's amputation at the ankle-joint, and a *heel-flap* having been formed, the os calcis is exposed, lateral incisions are continued, on either side, along the sole of the foot to the line of the calcaneo-cuboid articulation, whereby a short *sole*-flap is reflected forwards, and the operation completed as before. The objection to this plan of excision is the liability to sloughing of the heel-flap in disease of the os calcis; fistulous openings frequently having formed posteriorly, where the flap is attached. The advantage of a heel-flap is that the excision can be readily converted into Syme's amputation in the event of the astragalus being found to be extensively involved. This method, therefore, was recommended by Mr. Teale, and practised by Mr. Page, as a precautionary proceeding in excision of the os calcis.

Apart from the contingency of sloughing, I prefer the sole-flap method of excision.

3. *Excision of the os calcis and astragalus.*—Wakley's operation is performed much in the same manner as the second method of excision of the os calcis alone. The only differences are, an *additional* incision between the malleoli posteriorly, curving down to the insertion of the tendo Achillis, so as to expose the astragalus on raising this flap of integument, and that the integument of the heel between this incision and the incision across the heel, from malleolus to malleolus, forming the heel-flap in the other operation, is here removed. The bones are excised through the gap thus made posteriorly, by dividing the tendon and lateral ligaments, lateral incisions being continued along the foot to the line of the calcaneo-cuboid and astragalo-scaphoid articulations, so as to give access to these articulations. The malleoli are removed with bone-nippers. The posterior tibial artery must be ligatured, but the anterior tibial is avoided by very cautiously using the knife in removing the astragalus in front of the tibia.

This excision would probably meet the difficulty of disease extending up to the ankle-joint, and in such case prove a substitute for Syme's amputation at the ankle-joint. The operation was performed by Mr. Wakley at the Royal Free Hospital, in December, 1847, and the case is reported in THE LANCET of July, 1848.

Results.—*Of partial* excision of os calcis, in 42 cases collected by Mr. Hancock, 38 were operations for *disease*—25 caries, 12 necrosis with sequestra, and 1 necrosis. Of the 25, 1 died the day after operation of diarrhœa, 14 recovered at periods varying from six weeks to six months, 2 required a second operation, but recovered, and 1 underwent secondary amputation, while of the remaining 7 the result is not stated. Of the 12 cases, 3 recovered, 1 required a second operation, 1 secondary amputation, and of 7 the result is not stated.

Complete excision: Of 18 cases (the particulars of which are authenticated), in 14 the disease was scrofulous; and in 11 of these this condition was entirely constitutional, in

I it is said to have originated from a nail having been run into the heel, and in 2 to have followed sprains. Of the 11 cases, 1 died of diphtheria, 7 recovered, and with perfect use of the limb, while 3 suffered secondary amputation, 2 from recurrence of disease in the remaining tarsal bones, and 1 owing to erysipelas. Of the 3 cases induced by injury, 2 recovered completely, and the result of the third was doubtful.

The *general* results of complete excision of the os calcis are thus represented in 34 authenticated cases: 1 died of diphtheria, 25 recovered completely, 4 underwent secondary amputation, and of 4 the results are not given.

In one case of excision of the os calcis for caries, I removed also the cuboid bone and a small portion of the external cuneiform bone, both of which were involved in the disease. The patient recovered, and with a thoroughly sound and permanently serviceable foot; this result having been established by two years' duration, when the weight of the body could still be supported by the foot, and the ankle-joint had free motion. He walked without the aid of a crutch or stick. The particulars of this most successful case are reported in THE LANCET of July 23rd, 1864.

Compared with sub-astragaloid amputation.—This operation has been little practised in England, but chiefly in France. It appears to have been performed altogether in 22 cases, as collected by Mr. Hancock. The results of some are not stated. Of the whole number, 6 were operated on by Malgaigne, 1 by Maisonneuve, and 1 by Nélaton; in 9 collected by Vacquer all terminated favourably; 1 by Dr. John Traile, of Arbroath, was successful; in 2 by Mr. Simon 1 was successful, the other patient having died of tetanus at the end of a fortnight; in 1 by Garner, of Stoke-upon-Trent, the report was unfavourable; and 1 by Mr. Hancock was successful.

The *cuboid*, *scaphoid*, and three *cuneiform bones* may severally require excision, and preferably to removal by Chopart's amputation in the articular line between the os calcis and astragalus behind and the cuboid and scaphoid in front, whereby the two latter tarsal bones, the three cuneiform bones, with the whole of the metatarsus and toes, are sacrificed. But the conditions of disease appropriate for excision rather than amputation are not determinable by any precise rules; and either operation must be selected according to the judgment of the surgeon in each particular case.

For the operations of excision no particular directions can be laid down; the lines of incision must be guided by the state of the integument and the facility for gaining access to the bone and its articulations.

The *metatarsal bones* may also be subjected to excision, either at their articular ends or of the whole bones. These operations of extirpation are more desirable than the sweeping amputation of the metatarsal portion of the foot, including the toes, by Hey's operation, in the line of the tarso-metatarsal articulations. The choice of operation must here again be determined in each particular case by the kind and extent of disease.

The *toes* are not eligible for excision, except at their articulations occasionally, or of the ungual phalangeal bones. Removal of the intermediate phalanges will scarcely leave a useful toe. With regard to the *great toe*, its metatarso-phalangeal articulation may occasionally be excised, or the last phalangeal bone removed, thus preserving the ball of the toe for the support of the arch of the foot.

But the *results* of these excisions of the metatarsal bones and phalanges of the toes, or of their articulations, are less successful than in the corresponding bones of the hand, the toes or their contracted portions remaining comparatively useless or inconvenient.

I have now laid before you the very important experience of other surgeons, no less than my own, relative to excisional surgery of the ankle-joint for disease, concluding that of the lower extremity; and if I have succeeded in attracting a more general appreciation of, and confidence in, these most valuable operations, the object of these lectures thus far will have been accomplished.

CHOLERA has broken out at Berhampore and amongst the artillery at Trimulgherry. We regret to learn that the civil surgeon of the former place, Dr. White, was one of the first victims of the disease.

CASES IN OPERATIVE SURGERY.

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(*Concluded from p. 157.*)

REMOVAL OF PTERYGO-MAXILLARY TUMOURS BY THE MOUTH.

ALTHOUGH we frequently meet with cancerous infiltrations invading the pterygoid region, it is extremely rare to find simple or benign tumours in this situation. The ordinary parotid tumour, to which, in structure, shape, size, and general characters, this one bore a very close resemblance, and a part of which at least occupied the same position, always grows outwards as it develops, and is removed with a degree of facility corresponding to the size it has attained. In operating upon such tumours, after the flaps have been thoroughly reflected and the capsule fairly opened, the deep parts are separated by gentle traction, and almost without using the knife. I am not aware, however, that any instance has been recorded where a tumour, occupying such a position as the one I have just described, has been removed by an incision within the mouth, and possibly there are few cases in which it would be practicable to do so. A remarkable case, however, was recorded by Dr. Kelburne King, of Hull (THE LANCET, vol. i. 1871, p. 264), in which, from the description, I am almost inclined to think this might have been done. The case appears to have been almost identical with the one I have just narrated, except that in Dr. King's case the tumour was purely fibrous, whereas in mine it was fibro-cartilaginous. Dr. King first put a ligature round the common carotid, which had to be tied during the operation, owing to severe hæmorrhage. He then laid open the cheek from the angle of the mouth to behind the ascending ramus of the jaw, and by this means, after dividing this portion of bone and separating the fragments, he gained access to the tumour, which was removed, together with the tonsil and the greater part of the soft palate, although it proved afterwards to be distinctly encapsuled and to have "no firm adhesion to any of the surrounding tissues."

Another case of simple tumour originating in the same position is described by Dr. Watson, of Edinburgh (THE LANCET, vol. i. 1869, p. 744). He also obtained access to the mass by making an incision through the lower lip from the prolabial edge to the point of the chin, and thence along the base of the jaw to midway between the angle of the jaw and its articulating process, and then, by severing the bone in the bicuspid region, separating the fragments, and "dividing the mucous membrane covering the tumour from the palato-glossus to the exposed part," he, "in less time than the description of the operation occupied, completely detached the tumour from all its surroundings." A description of the parts exposed in these bold and admirably conducted operations may well excite a shudder even in the most daring operator, possessed, as he must be, of a most thorough knowledge of anatomy. In the latter one it is mentioned that there was "exposed, as in a dissection, the tonsil, the palato-pharyngeus and constrictor of the pharynx, the internal carotid artery, the eighth nerve, the internal jugular vein, the ninth nerve, the terminal branches of the external carotid artery, and the inferior division of the fifth nerve."

When it is remembered that all innocent tumours, properly so called, are enclosed in a complete and distinct investing capsule, which is separated from the surrounding parts by a simple layer of condensed cellular tissue surrounding the capsule proper, it appears to be often unnecessary, in order to remove them, to do more than make an aperture large enough to admit of their passage externally, and then they are capable of being easily shelled out by the aid of the finger or some blunt instrument with much greater precision and much less risk than by the most elaborately conducted dissection. This observation is specially appropriate with regard to tumours occupying the position we are now considering, and, indeed, it applies also to innocent tumours generally in the region of the

mouth and pharynx. The deep and almost inaccessible position of such growths secures them from the accidental agencies liable to excite inflammation and consequent adhesions in tumours situated more superficially. If it is clearly ascertained that they admit of as much movement as the confined space in which they are lodged permits, I believe they may generally be easily and safely removed by the method I have described, and without any external incision or any elaborate dissection.

In October, 1864, a woman, aged thirty-five, was sent to me by Dr. Dobie, of Chester, and was admitted under my care into the Royal Infirmary, suffering from great difficulty in swallowing and from occasional attacks of dyspnœa, caused by a growth of firm, fibrous consistence on the right side of the pharynx. Externally there was nothing to be observed, but on examining within the mouth the right side of the lower part of the pharynx was seen to be pushed over till it nearly touched the left, and almost occluded the passage from the mouth to the œsophagus. Over this the mucous membrane and the tonsil were tightly stretched, but these structures admitted of sufficiently free movement on the growth beneath to satisfy me that they were not adherent. With difficulty I was able to pass the finger behind the tumour into the posterior part of the pharynx, and then, by hooking my finger forwards I was able to produce sufficient movement of the mass to feel sure that it was encapsuled. In every direction except below I was able to define its limits, but it passed downwards into the lower part of the pharynx beyond the utmost reach of my finger. The tumour had been observed for some years, but had latterly increased rapidly, and the unfortunate woman was emaciated by starvation and in imminent danger of suffocation.

On Nov. 1st I made an incision over the tumour from below upwards, commencing at the lowest part I could reach with the knife, and extending through the mucous membrane and external capsule directly over the tonsillar gland upwards as far as the soft palate. This was joined about its middle by another at right angles over the anterior portion of the tumour. Then, by using the handle of the knife, the flaps thus formed were reflected, and the growth sufficiently exposed to enable me to seize it and hold it firmly by powerful vulsellum forceps, by the aid of which, assisted by the finger thrust between the capsule and the external sheath, I was able, in a very few minutes, to evulse and enucleate the entire mass, which proved to be as large as a moderately-sized ripe fig, and of purely fibrous structure. No bleeding of any consequence occurred; the patient was at once relieved, and left the hospital cured ten days afterwards.

I hope the narration of these cases and the opinions I have expressed may encourage surgeons to adopt the practice I have found so simple and successful.

REMOVAL OF LARGE SCROTAL TUMOUR.

James H——, aged forty-eight, by occupation a tailor, came under my care in the Royal Infirmary in March, 1871. He seemed in very fair bodily health, and was stout and well nourished, though somewhat pale from long confinement to the house. His statement with regard to the scrotal tumour, of which he was the subject, was, that seventeen years previously he noticed there was a small lump, about the size of a bean, in his left groin, situated near the inner end of Poupart's ligament. One day, having been on an excursion to Liverpool, he had partaken rather freely of liquor, and as he was waiting at the station for the train he became very sick and retched violently, and while straining in the act of vomiting he felt this lump slip down into the scrotum. For quite twelve months after this occurrence the lump remained movable, so that he could slip it up into the groin again at pleasure. Gradually, however, it became fixed in the scrotum, and slowly increased in size, dragging down with it the left testicle to a lower level than the right one. For the first seven years or so the tumour slowly but steadily grew till it was about the size of two fists, not causing any pain; but after that time it grew more rapidly, and soon doubled its size. As the tumour grew, so the scrotal integuments and structures beneath all took on a hypertrophic action, and also increased in bulk. Finally the tumour and its hypertrophied covering attained the enormous size represented in the woodcut (Fig. 5), and during the last eighteen months it prevented him from getting out of doors more than twice or thrice. His only exercise was to go down from his bedroom to the sitting-room and return again at night. For the last year and a

FIG. 5.

half he was quite unable to work at his trade, and, indeed, could do but very little for two or three years before that. Moreover, for a considerable period he had suffered a great deal of dragging pain in the tumour—in fact, more pain, he declared, than he suffered by the wounds caused by the operation. During sleep he always lay on his side, because, if he lay on his back, the weight of the tumour resting on his thighs quite benumbed his legs. During micturition he had to rest the mass upon something for support; and when the bowels were being moved he had to draw it up as tightly as possible towards the abdomen. He stated that his sexual feelings were not at all impaired.

From the history of this enormous growth, it appeared probable that it might be placed in the class of pendulous tumours; whilst its general character led me to believe that it would prove to be of fibro-cellular formation. The body of the penis lay embedded in its upper surface, and its situation was clearly marked by the preputial orifice, as shown in the woodcut. One testicle could be felt, with tolerable distinctness, about eight inches below the pubes, on the right anterior surface of the mass; but the position of the other could not be made out except by the patient himself, who professed, when a spot about twelve inches below the left groin was handled, to experience the sensation peculiar to the gland when pressed upon. As he stated that he still retained his sexual feelings, it was evidently desirable to preserve both testicles if possible; and I proposed in the first instance to enucleate these glands, and then to sweep off the whole tumour by rapid strokes of the knife.

The circumference of the mass at its junction with the pubes and perineum was twenty-eight inches; and the chief difficulty I had to contend with during the operation arose from its enormous weight and size, which prevented me handling and moving it so as to obtain a general correspondence in the lines of incision requisite for this purpose. During the time the patient was being put under chloroform the tumour was elevated and compressed as much as possible, and cold was applied to its surface, with the view of removing as much blood as possible from its substance. I then commenced the operation by making a semicircular incision, with the concavity upwards, round the position of the body of the penis, including the preputial orifice and

sufficient skin to cover the organ. This was rapidly dissected up and held aside by an assistant. Another incision was then made over the right testicle, and continued upwards over the presumed course of the spermatic cord till it joined the extremity of the previous incision on the right side. The gland with its spermatic cord was then detached and held out of the way. A similar corresponding but much longer incision was now made on the left side over the situation previously marked as the probable position of the left testicle; and this, being found, with some difficulty, deeply embedded in the hypertrophied cellular tissue, was traced upwards to the groin and similarly held aside. Thus far but little blood had been lost, and I now examined carefully to ascertain the nature of the deep attachments of the growth, exposed as this now was on its anterior and upper surfaces by the previous dissection. After a few touches of the knife, I soon found that the chief attachment was by a comparatively narrow pedicle, composed of dense fibrous material and not thicker than the base of the thumb, which passed upwards towards the position of the left external ring. It looked very like a hernial descent from the abdominal cavity, but its density was such that I was satisfied that it consisted only of tough fibrous material. Before dividing it, I deemed it safe to pass a stout ligature around it, immediately beneath which I cut it through, and I then saw clearly that there were no further attachments. I next, with a large knife, swept round the lateral and posterior parts of the thickened neck of the scrotum about four to six inches from its junction with the body, and severed the entire mass. The gentleman who was assisting me compressed the immense wound as it was exposed, and the vessels were taken up and tied as the pressure was removed, first at one point and then at another. By following this method, no great amount of blood was lost. The margins of the incision were afterwards brought into tolerable contact, the testicles were covered in, and the penis was sewn up in its separate sheath. The patient made an excellent recovery, and was discharged cured a few weeks after the operation.

On examining the enormous mass after its removal, it was found that the greater bulk of it consisted of hypertrophied scrotal skin and subcutaneous tissue, the latter so infiltrated with serum as to present an almost jelly-like appearance. Embedded in this was the original growth, about the size of a 32 lb. shot, enclosed in a firm capsule, and presenting on section all the appearances of a fibro-cartilaginous tumour. Subsequent microscopic examination showed this to be its true structure. From its upper part a firm band had passed upwards, which was divided in the course of the operation, as above described.

SCARLATINA IN INDIA.

BY SURGEON CHAPPLE,
ROYAL ARTILLERY.

MY attention having been drawn to an article in the *Indian Medical Gazette* of June 1st, 1871, headed "Scarlatina unknown in India," questioning the accuracy of the statement in THE LANCET of Feb. 11th, 1871, that cases of scarlatina have been met with in India, and calling "on anyone in possession of positive evidence on the subject to submit it fully to the judgment of the profession," I offer the following brief report of an outbreak of scarlatina at Kirkee, which I think will convince the most sceptical that genuine scarlatina, and of a very serious type, does occur in India.

Kirkee is a large Artillery station, about 1850 feet above sea-level, and within six hours by rail of the Presidency town, Bombay. On the 31st of January a draft of Artillery, consisting of seventy-five men, seven women, and twelve children, arrived at Bombay in the troop-ship *Euphrates*, and was sent by rail to Kirkee on the 2nd of February. Several cases of scarlatina occurred during the voyage from England. On the 20th of February a child was admitted into hospital at Kirkee with scarlatina. On the 26th of the same month two children were admitted; on the 27th another child; and cases continued to occur, at different dates, up to the 28th of April, when scarlatina finally disappeared. The outbreak lasted nearly three months, during which time fifteen children were treated, one woman, two ladies (wives of officers), and two children of officers.

It would occupy too much space to enter into details of symptoms present in each case; but the length of the primary fever, the progress and character of the eruption, the peculiar tongue, and the throat implication, put the diagnosis of scarlatina beyond all doubt. In four cases there were ardent fever and delirium for three days after the appearance of the eruption. Three children, aged respectively two, four, and five years, died on the second day of convulsions; the eruption in these fatal cases was suppressed, but it could be seen distinctly beneath the surface. One child, aged three years, on the fourth day of the disease suddenly gasped, and matter gushed from the nostrils; the nurse ran to the child at once and took her up, but she was dead, suffocated no doubt by the bursting of an abscess in the throat. Two cases were marked by painful swelling of the wrist, knee, and ankle joints during the second week of the disease. In one woman who was attacked the appearance of the eruption did not mitigate the fever; on the fifth day she became delirious, and on the seventh the temperature in the axilla was 106·4°, the highest noted; she died on the following day; cuticle desquamating at time of death. Measles was prevailing amongst the children prior to the outbreak of scarlatina, and, for about a fortnight after the first case of scarlatina, coexisted with this disease, making the diagnosis more easy and certain.

The most careful inquiries failed to elicit any history of exposure to contagion in the following case:—

An officer's wife and her two children arrived at Kirkee about the 18th of March, on a visit to her sister. She came from a station 600 miles up country, where there had never been a trace of scarlatina. On the 21st of April she got fever, and in due course all the symptoms of scarlatina were developed. The disease ran through its usual stages, and was followed by abscess in the ear and deafness. The lady stated that she had suffered *twice* before from scarlatina. She lived fully a mile from the infected quarters, held no communication whatever with any of the soldiers' wives or children, and her servants, being all natives, made the liability of contagion through them almost impossible. As soon as the nature of the disease was diagnosed her children were removed to the house of another lady, but the children were attacked within a week, and finally the lady in whose charge they were suffered. In these latter cases the disease was very mild. The mean temperature during the months of February, March, and April was respectively 78°, 81°, 85° Fahr. in the shade. High temperature—sometimes over 100° in the shade—neither increased nor decreased the spread of the disease.

Remarks.—I think there can now be no doubt that scarlatina is not unknown in India; and that, when it does occur, it is as highly contagious and serious a disease in this country as in England. I have served eleven years in India, and never met with a case of scarlatina before the outbreak just described. Assistant-Surgeon Parr, R.N., and Staff Assistant-Surgeon Eaton, who had charge of the female hospital during the outbreak, have no doubt whatever that the cases admitted were genuine scarlatina. One child out of six, taking the average strength of soldiers' children, was attacked. The opinion of THE LANCET of the 11th of February, that the disease has been imported from England, seems confirmed; and I trust I have fulfilled the wish expressed in the same article in tracing the origin and progress of the outbreak of scarlatina at Kirkee.

Kirkee, June 19th, 1871.

REPORT OF

THREE OBSTETRICAL CASES OF AN UNUSUAL CHARACTER.*

BY J. HARRIS ROSS, M.D., M.R.C.S.

A CASE OF DOUBLE UTERUS, WITH CONCURRENT PREGNANCY.

MRS. C——, the subject of these remarks, is a woman aged thirty-three. She has been married fourteen years; and, previous to the circumstance I am about to relate, had been delivered of six children. With the last three I was the medical attendant; but had never before had the oppor-

* Thesis for Graduation at the University of Glasgow, 1871.

tunity of examining the uterus, as the child on each occasion was quite at the outlet of the vagina when I arrived at her house. With the exception of once (when she was prematurely delivered of a seven months' child) the labours were all natural, and she always made a good recovery.

She sent for me in May, 1870, as she had considerable hæmorrhage. She told me that she was pregnant, and that she had not menstruated since the previous February. On examination I found the os uteri very flaccid and partially open, and another opening close to the left of it, which I supposed to be an excavated ulcer, and the cause of the hæmorrhage. As she objected to the use of the speculum, I ordered her to keep the recumbent posture, and to use an astringent injection, which I sent her, together with some tonic medicine. In a few days the hæmorrhage ceased, and she got about her household duties until July 16th.

On the morning of that day she sent for me in a great hurry. I found her with strong labour pains, and on making an examination I found a bag of membranes protruding from the uterus, which ruptured during my examination. After this the pains left her. I saw her several times in the course of the day, but the pains did not return until about nine o'clock in the evening, when they were of a very feeble character. On examination at this time I found another bag of membranes protruding, which I ruptured, as I thought it might stimulate the uterus to contract. A head then presented, and, after some time, the pains being very feeble, a fœtus was expelled. On again examining, a leg presented, and after a while I delivered her of a second fœtus, and then of a double placenta—that is, one with two cords. The children were, I should judge, of nearer six than five months' growth. After I had removed the placenta the patient exclaimed, "I am sure there is another, Mr. Ross"—meaning another child. As the uterus felt rather bulky, I introduced my hand into the vagina, and my finger into the uterus, to make sure, but found the cavity quite empty. At this time the second opening in the uterus was plainly to be felt. The whole course of this labour was very different from her other ones; the pains were very feeble and the labour unduly long: this I attributed to her having twins.

About a week afterwards the patient again declared that she had another child in the womb; but I pooh-poohed it, as I had made such a careful examination after delivery that I felt certain I could not have left one behind. She, however, persisted in her statement. One day I went to see her, and, my hand being very cold, I placed it upon her abdomen, when I plainly felt the movements of a child, and upon applying my stethoscope the fœtal heart was quite audible. On examination per vaginam the two openings could distinctly be felt, when it at once dawned upon me that I had got a case of double uterus, with both sides impregnated at the same time. On introducing a sound into the apertures there was no doubt they both opened into a cavity or cavities, but, as she was still pregnant, I did not then push the matter further. When laid flat upon her back the tumour in the abdomen was decidedly more to the right than the left side. As there was now no doubt about her being pregnant, I told her to send for me directly she was in labour.

She went on well until the morning of October 31st, when she sent for me at 6 A.M. On my arrival I found the head on the perineum, with the membranes protruding. I ruptured them, and delivered her of a female child of full growth in about a quarter of an hour afterwards. On examining the uterus (after removal of the placenta) I could get my thumb into one opening, and, by a little manipulation, my finger into the other, and could distinctly feel a septum between them. She stated that she had menstruated three times since her miscarriage of twins in July. Both mother and child made a good recovery.

At the end of five weeks, or on Dec. 13th, I made a careful examination of the patient with the aid of my friend Dr. Hall, of Brighton, and as I thought it would corroborate my statement, I asked him if he would kindly write down his ideas on the case, and I give them in his own words:—

"On December the 13th, 1870, my friend Mr. Ross kindly permitted me to examine with him the uterus of a patient whom he had delivered about six weeks previously of a female child of full growth; and fifteen weeks and two days prior to this delivery he had also attended her of a twin abortion, the fœtuses being between the fifth and sixth month of pregnancy—both were born dead, and the placenta was double, with two navel cords. The condition of the uterine cervix on these occasions led him to suspect that the woman possessed a double, or what is obstetrically denominated a 'bipartite or bilocular uterus,' in both halves of which concurrent pregnancy had taken place; and he determined, as soon as the patient had recovered satisfactorily from her confinement, and with the consent of herself and her husband, to make, conjointly with me, a careful examination of the organ per vaginam. This was done with as little inconvenience and suffering to the poor woman as possible, who appeared in good general health, and was suckling her infant, a healthy-looking though somewhat small child for one born six weeks previously and at full time. On examination per vaginam the uterus was found to have undergone fair contraction or involution, being (with the exception of a slight inclination to anteversion) normally situated in the upper part of the vagina. On the front of the cervix two openings were easily detected, situated somewhat obliquely from the right to the left. The upper or right opening was sufficiently wide to admit the index-finger of the right hand for nearly an inch, and the lower permitted the point of the same finger to pass through the lips. The edges or lips of both apertures were somewhat flaccid and gaping, the right one more so than the left. Upon introducing the sound into the upper or right aperture, it passed quite freely into a cavity two inches and a half deep to the summit, where it was cautiously moved in every direction with a view of discovering any communication which might exist between this and the supposed adjoining cavity; and on withdrawing the instrument the same caution was exercised, and for the same purpose, but no such outlet or passage could be detected. The sound was then passed into the lower or left aperture, and traversed quite easily a cavity two inches and a quarter only deep, nearly parallel to the preceding cavity. Thus between the two cavities there was a vertical partition or septum extending from the fundus to the front of the cervix uteri, and completely dividing the latter into two separate and distinct cavities. Upon introducing the speculum per vaginam, the 'ora uteri' could be readily seen, situated obliquely across the cervical front, the larger opening being above and to the right of the lower or smaller one. Some little pain was caused upon introducing the sound into the uterine cavities and moving it about, but the woman behaved remarkably well and patient during the whole time of the investigation. I think it will be readily admitted that this was a most unique case of concurrent impregnation of a bilocular or double uterus, in which the smaller or posterior cavity, unable to bear the excessive distension occasioned by the growth of twin fœtuses, expelled its contents by abortion between the fifth and sixth months; and that the right upper and larger cavity, thus relieved from a sense of resistance to its steady growth and expansion, was enabled to carry its contents to the full period of gestation."

The occurrence of menstruation, also, at three separate monthly epochs, between the premature births in July and the delivery of a full-grown child in the following October, is a most singular and corroborative proof that this was a case of concurrent impregnation in a bilocular uterus, the aborted cavity resuming its menstrual function in due time after expulsion of its fœtal contents.

The case is also very interesting in a physiological point of view; showing that the muscular fibres of one cavity must have been entirely independent of the other, from the fact of the left having the power of expelling its contents without affecting the right.

(To be concluded.)

A CASE OF POISONING BY PHOSPHORUS.

By W. ANDERSON, M.D.

A VERY healthy female child, aged one year and eight months, had sucked the heads off about twenty matches before it was detected, on Saturday evening, July 8th. Next day it presented no particular symptoms. The mother gave her a dose of castor oil, which operated freely. On Monday evening she seemed drowsy and fell asleep, in which state she continued for twenty hours with scarcely any in-

termission. On Tuesday the father came for advice, and the following mixture was ordered:—Oil of turpentine, one drachm; acacia mixture, half an ounce; cinnamon-water to two ounces: half a drachm to be taken every four hours, and plenty of milk. On Wednesday it vomited, and was feverish and weak during the day. The mother thought it was teething. When visited on the same evening, the skin was hot, the pulse rather quick, tongue dry and parched, child very restless and constantly wanting drink, and the extremities were cold. She was ordered a powder composed of calomel and James's powder, a grain and a half of each; a mustard footbath, and mucilaginous drinks. After this the child rallied. On Thursday morning an attack of vomiting came on; the slightest pressure on the epigastrium producing great pain. Repeat powder and hot stupes and cataplasms to stomach. A slimy motion was passed. Towards evening she grew gradually weaker; the extremities were cold, and there was persistent vomiting of matter like coffee-grounds. When seen later in the evening she was almost pulseless; cried loudly in bursts; was unconscious; and passed involuntary motions of a dark colour, apparently containing coagulated blood. A distinct alliaceous odour was given off from the breath. The child writhed convulsively, and was evidently suffering great pain in the epigastric region. She had fits of vomiting of coffee-ground type. The extremities were cold, and the whole body was of an icteric tint. She seemed moribund; but after giving her a draught of saccharated solution of lime and tincture of opium (three drops) in some brandy at intervals, the vomiting was checked and the little sufferer seemed much relieved. Hot opiate stupes were applied constantly to the abdomen, and hot jars to the feet. In spite, however, of the administration of brandy, beef-tea, &c., the little patient gradually sank until her death at 3 A.M. on Friday, being the seventh day since she had sucked the matches.

The child had never been ill before, but was a remarkably fine, well-nourished child.

An examination of the body was made at 5 o'clock on Friday evening. There was no rigor mortis. There was marked general ecchymosis, and the body presented a decided icteric tint. Lungs and heart healthy. The heart contained little blood, except in the right auricle, which was filled with dark blood in a semi-coagulated state. The kidneys and spleen were normal on section. The liver was larger than normal, of a decided yellow hue, and had all the appearances of commencing fatty degeneration. From the circumstances of the case, the autopsy was not so complete as could be wished. The brain was not allowed to be examined. On opening the stomach, a distinct alliaceous odour was evolved. The gastric mucous membrane was highly injected, no perforations discernible, and it was filled with a dark grumous fluid. The intestinal tract was lined with a catarrhal mucus, but was not inflamed, except the ileum, which was highly congested, especially the patches of Peyer, which were much inflamed, and also the ileo-cæcal valve. Turpentine was given in accordance with a communication which I had noted down from one of the medical journals, and which I here subjoin—viz.: "Commercial oil of turpentine is a good antidote to phosphorus; there is no fatty degeneration of the tissues, nor is there any free phosphorus found in the system of the animals experimented on. Phosphorus and turpentine form in the stomach a compound resembling spermaceti, which is really excreted." I failed to detect phosphorus in substance in the contents of the stomach by Mitscherlich's process; whether this was owing to the turpentine I cannot determine. The contents were not luminous in the dark; however, on acidulating a portion of the contents of the stomach with nitric acid, and adding a few drops of the solution of the ammonio-nitrate of silver, a distinct yellow precipitate of phosphate of silver was thrown down. I found the matches to be composed of phosphorus, chlorate of potash, glue, and colouring matters. The administration of the castor oil by the mother was unfortunate, as it doubtless accelerated the action of the poison by rendering it more soluble.

The history of the case and the fatal result correspond with the majority of the cases of phosphorus poisoning as detailed by Schraube in his exhaustive treatise.

For the notes of the above interesting case I am indebted to Dr. R. A. K. Holmes, who also devoted much attention to the little patient.

Richmond, Surrey, July, 1871.

A Mirror
OF THE PRACTICE OF
MEDICINE AND SURGERY
IN THE
HOSPITALS OF LONDON.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. GEORGE'S HOSPITAL.

CASES UNDER THE CARE OF DR. OGLE.

Paraplegia from Disease of Vertebræ associated with Kidney Disease.—The patient, a man, was admitted with albuminuria and anasarca, intense dyspnœa, want of power in moving the legs, very great spinal curvature, and enormous bed-sores which exhausted him. After death the dorsal vertebræ, from the fifth to the ninth inclusive, were found to be very carious, and the dura mater of the spinal cord corresponding was covered with pus, and was thickened and vascular. The cord itself was also vascular at that part.

Unusual Symptoms from overloaded Rectum.—An old woman, the subject of bronchitis and emphysema, was admitted with pain at the lower part of the abdomen and dysuria—symptoms to which she had been previously subject. She was suffering from constipation at the time. Her sensations were those of a tumour in the vagina. Enemata which were injected were returned from the bowel. On a vaginal examination being made nothing was found wrong with the uterus or vagina; but the rectum was found to be crammed full of hardened fæces. It felt like a large tumour in the vagina. Persistence in strong purgatives brought away large quantities of fæces, and removed the pain and difficulty of voiding urine, which had evidently been due to mechanical obstruction. The bowel would have been relieved with the scoop had it not been relieved by medicine.

Alcoholism.—The patient, a butler, aged thirty-two, stout and rather bloated, was brought into the hospital suffering from intense dyspnœa of four months' standing, which had been attended by pains and tightness across the chest, which he attributed to cold. He had drunk freely of beer, had much headache, and had had rheumatism several times. When seen, on the following day, he lay in bed with a tremulous movement of the lips and the eyes quite closed, as if he had been insensible, the eyelids acting briskly in a reflex way when blown upon. The tongue was protruded with some difficulty, was red at the edges, and tremulous. Skin hot and perspiring. Purgatives, salines, and a low diet were given, and the tremulousness and heavy drowsiness passed off by degrees; quinine was subsequently given. After a stay of three weeks in the hospital, the patient was transferred to the Convalescent Hospital. In some respects the case was at first doubtful, presenting very much the aspect of a fever, but the absence of any change of temperature soon allayed the suspicion. No stimulants were given throughout the course of the case.

A case of *severe rheumatic fever*, of one month's standing, in a fire-brigade man, after exposure to wet for twenty-four hours. At first it was treated by simple effervescing salines, and two-grain doses of quinine; as sickness came on the latter was discontinued. He made a good recovery under neutral salines, and one or two doses of Dover's powder. Quinine was again resorted to during convalescence. The patient had had a similar attack, with a relapse, eight years previously. There was no heart-complication.

A case of *intense jaundice*, of two weeks' standing, in a young woman, following vomiting, which was attendant upon severe nursing night and day. She suffered no pain or abdominal enlargement, the urine was full of bile, and motions wanting. She recovered under taraxacum, and nitrate and acetate of potash with occasional aperients, so as to leave the hospital with but a slight tinge in a fortnight.

A case of *intense congestion of the lungs*, with bloody, rusty-coloured sputum. The urine was albuminous. On

recovery from the lung trouble the legs for the first time began to swell. The anasarca was increasing when the patient insisted on leaving the hospital.

A case of *anasarca* and *anæmia* in a man. There was enlargement of the liver and spleen, with increased vocal resonance in the lungs, especially the upper part of the left one, loud expectoration, and feeble inspiration. The heart was natural; urine abundant, and of specific gravity 1016 and 1013, no albumen detectable. At first frequent vomiting and purging occurred. Much improvement took place under meat diet, diuretics (taraxacum and broom), and, later on, the carbonate of iron pill.

A slight case of *enteric fever* of ten days' standing, in a girl nineteen years of age. On admission it was like a case of febricula. There were no rigors, tenderness of the abdomen, or diarrhœa. After frequent search a few doubtful spots were found only fourteen days after admission, but the evening rise of temperature marked the case. Recovery was effected under citrate of ammonia and salines, with soda-water and small doses of brandy.

A case apparently of *hysteria* in a child aged twelve. She had refused solid food for eighteen months, and had lived chiefly on sweets. On admission she lay cramped up in bed, complaining of intense pain in the abdomen, with her eyes constantly closed or half closed, as if light gave pain. The expression of pain was always exaggerated when she was watched or spoken to. She was very thin and weak, but no actual disease of any organ could be determined, and the temperature has been natural. Under proper food, with steel and quinine, valerian, and a little stimulant, she has much recovered already. She has been made to use her muscles, and to sit up near the window watching the "row" in the park, and has had shower-baths. She is eating solid food now, and taking cod oil, and is increasing decidedly in weight.

ST. BARTHOLOMEW'S HOSPITAL.

TWO CASES OF POPLITEAL ANEURISM TREATED BY LIGATURE OF THE FEMORAL ARTERY.

(Under the care of Mr. SAVORY.)

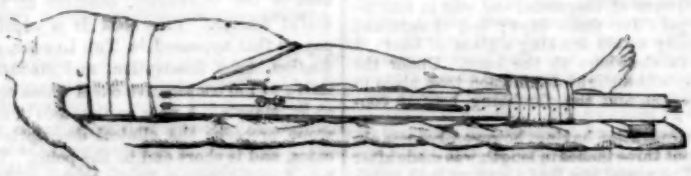
WE are indebted to Mr. P. Butler Stoney, house-surgeon, for the particulars of the following two cases.

Phineas Y——, aged thirty-three, a surgical instrument maker, felt pain in, and stiffness of, the right knee, about six weeks before admission. As the pain became less, a swelling appeared at the posterior part of the joint, and steadily increased in size. On admission, an oval pulsating tumour, of about the size of a small melon, was found to occupy the right popliteal space. Pulsation, uniform throughout the tumour, was distinctly appreciable to the eye and touch. The posterior tibial artery pulsated at the ankle; the radials were not tortuous; the heart-sounds were normal; there was no arcus senilis, nor œdema of the leg or foot. The general health was good. The patient complained of neuralgic pains in the leg and foot. After division of a thick layer of subcutaneous fat, the femoral artery was ligatured at the apex of Scarpa's triangle. The edges of the wound were brought together with silver sutures; it was dressed with carbolised lint, and the limb was wrapped in cotton wool, bandaged, and flexed. On the morning following, the patient had a rigor, and suffered some nausea; but these symptoms were followed by no unfavourable result. On the third day the temperature of the bandaged limb was 99° F.—two degrees higher than that of the sound one. The ligature came away on the eighth day. On the forty-third day the patient was moving about the ward. A slight discharge oozed from the wound. The tumour had undergone a very marked diminution in size, and presented no return of pulsation.

George N——, aged forty-nine, had observed a swelling behind the left knee four months before admission. It gave him no pain or inconvenience for some time, but, with certain intervals of partial subsidence after rest, continued to increase steadily. During the last four weeks he had lost flesh and strength to such an extent as to be unfit for work. The tumour was found, on admission, to be of about the size of a hen's egg, fusiform in shape, distinctly circumscribed, and subject to a strong expansive pulsation following perceptibly after the pulse beat of the femoral artery. The cardiac and pulmonary sounds were normal; the radial arteries slightly, and the temporal arteries very tortuous; an incipient arcus senilis was to be observed. The femoral artery was tied in Scarpa's triangle with a hempen ligature, and the wound was dressed with carbolised lint after the edges had been brought together with silver sutures. The limb was enveloped in cotton wool, and bandaged. A quinine draught was ordered to be taken twice a day, and castor oil to be taken at intervals to counteract a tendency to constipation. On the second day there was some sickness. Three of the sutures were removed on the third day, and the remainder on the fifth. The ligature was removed on the twentieth day. The patient made a good recovery, with marked diminution in the size of the tumour.

EXTENSION OF FRACTURED THIGHS BY MEANS OF AN ELASTIC SPRING.

The accompanying woodcut shows how the above principle is at present applied at St. Bartholomew's Hospital by means of an instrument designed by Mr. Cripps, one of the dressers. An ordinary long splint is provided with a pair of pulley wheels near the upper part, a single one at the opposite extremity, and a row of pegs on the lower half



of the outer aspect for the attachment of the spring and the regulation of the degree of tension. The extremities of the perineal band are attached to the ends of a doubled string, which plays over one wheel of the double pulley and passes to its attachments over the two upper wheels in the splint. Another string is attached to one end of the spring, passed over the other wheel of the double pulley, and then over the wheel at the lower extremity of the splint, where it is fastened to a stirrup which has been adapted to the patient's ankle. Thus the elastic tension of the spring is brought to bear in an opposite direction upon the two extremities of the limb. The contrivance seldom needs readjustment, and, when it does, the object is readily effected by moving the spring from one peg to another. Three fractured thighs have been treated by its aid at St. Bartholomew's Hospital, and in each instance union has been effected without shortening.

PROVINCIAL HOSPITAL REPORTS.

MANCHESTER ROYAL INFIRMARY.

LIGATURE OF THE EXTERNAL ILIAC ARTERY FOR FEMORAL ANEURISM.

(Under the care of Mr. LUND.)

THE patient, who was forty-two years of age, had an aneurism high up in the course of the left common femoral artery. He stated that fourteen months before he had had pressure applied continuously for thirty-nine hours above Poupart's ligament, which caused a diminution in the size and pulsation of the tumour, but was followed by a slough-

ing sore, which after a time healed up, leaving a large white firm cicatrix.

For about a year previous to his admission he had been without treatment, and the tumour had been slowly increasing.

The operation of ligature of the external iliac artery was rendered tedious by the large quantity of subcutaneous fat, and the adhesion of the anterior wall of the sheath to the superjacent tissues. An antiseptic catgut ligature was employed, and was cut off close to the vessel. The wound was closed with antiseptic silk sutures, and was then dressed with lac plaster.

On the removal of the sutures, on the eighth day, the wound was found to have healed in its entire extent, except at one angle where it dipped into the cicatricial tissue. The dressings were changed eight times, carbolised muslin being substituted for the lac plaster on the last two occasions. No pus whatever was secreted, not a single bad symptom occurred, and the patient was sitting up on the twenty-sixth day.

WEST NORFOLK AND LYNN HOSPITAL.

LIGATURE OF THE EXTERNAL ILIAC ARTERY FOR FEMORAL ANEURISM.

(Under the care of Dr. LOWE.)

W. M——, aged twenty-eight, a tailor, recently discharged from the army, a man fond of athletic sports, and a good runner, but of intemperate habits, was admitted with a marked tubular dilatation of the femoral artery, of a uniform diameter of an inch and a half, and extending two inches and a half from Poupart's ligament. His attention was first called to it by a sudden onset of severe and continuous pain on the morrow of a debauch. He had always enjoyed good health. What with the administration of digitalis and sulphate of magnesia, and rest in bed, he remained free from pain for three days; but it returned with its former severity on his drinking a glass of beer; it was more severe than elsewhere at the knee. Under the continued use of digitalis a slight diminution took place in the size of the aneurism, and the throbbing became considerably less.

The necessity of an operation having, however, become obvious, an incision about three inches in length was made after Cooper's method. The vessel was tied about an inch above Poupart's ligament with a silk ligature, the ends of which passed through the incision. The wound was washed with a solution of carbolic acid, closed with silver sutures, and dressed with carbolised oil. It healed by first intention, except at the point of exit of the ligature. It discharged very little pus, and that of a healthy character. Up to the thirty-sixth day the ligature showed no disposition to come away, although frequent traction was made upon it. It was therefore attached to a thin india-rubber band which was fixed by strapping, at a moderate tension, to the thigh. Four days later it came away. The remainder of the wound speedily closed, and the patient was discharged. Sixty-five days after the operation he was found to be walking about as usual, and reported himself quite well. The aneurism had shrunk to about the thickness of a finger.

Reviews and Notices of Books.

Essay on Growths in the Larynx: with Reports of one hundred consecutive Cases treated by the Author. By MORELL MACKENZIE, M.D. Lond., &c. With numerous illustrations. London: J. and A. Churchill. 1871.—Since his gaining the Jacksonian prize for the best essay on "Diseases of the Larynx," in 1863, Dr. Morell Mackenzie has continued to study the nosology of that region, and with a success that has placed him high amongst the best authorities on the subject. In two publications he has treated, first, of the Nervo-Muscular Affections of the Larynx; and second, of Laryngeal Growths. The former is sufficiently well known to our readers to absolve us from further mention of it here; while the latter may be pronounced to be a yet more valuable contribution to the literature of its special subject. Dr. Morell Mackenzie gives, we are glad to see, a lucid narrative of the various researches which, as often indirectly as not, have gone to the advancement of laryngeal pathology and therapeutics. While tracing to the discovery of Czermak the source of all recent improvements in the diagnosis and treatment of the affections of the larynx, he does full justice to those antecedent and contemporary workers who have contributed in any way whatever to the common fund of enlightenment on the subject. Seven sections exhaust the history, the causes, the symptoms, the diagnosis, the pathology, the prognosis, and the treatment of laryngeal growths—the last of all, that on the treatment, being particularly commendable for the clearness and practical force of the directions as to laryngotomy and tracheotomy respectively. Perhaps the appendix, however, with its report of the cases treated by the author and others, will have most interest for the profession, as showing the various affections with which laryngeal growths may be accompanied, or in which they may have their origin. Dr. Morell Mackenzie, indeed, has earned the thanks of every practitioner for his very useful volume. While a most accomplished expert in his own department, he also shows his possession of what has been well called the "complete professional mind."

Affections of the Throat and Larynx. By ARTHUR TREHERNE NORTON, F.R.C.S., Assistant-Surgeon and Surgeon in charge of the Throat Department at St. Mary's Hospital. Large 8vo, pp. 39. London: Hardwicke. 1871.—This unpretending little work, though not comparable to that of Dr. Mackenzie, contains at the same time some useful matter. The book is a reprint in the main of papers that appeared in THE LANCET, and it gives a classification, brief description, and statistical information relative to 150 consecutive cases which applied for treatment at St. Mary's. A note on the mode of applying the laryngoscope precedes the clinical description of individual diseases, and is short and to the point. The *brochure* will be found useful, especially for beginners in laryngoscopy.

Personal Experience of Lithotomy in India. By WILLIAM CURRAN, L.R.C.P. Edin., M.R.C.S., Asst.-Surg. Army Staff, &c. (Reprinted from the *Dublin Quarterly Journal*, May, 1871.)—This reprint contains information that will be more or less new and interesting to surgeons unacquainted with India and Indian surgery. Mr. Curran is evidently a practical man, who dislikes the application of refined and subtle processes of investigation and modes of practice where the end can be attained by methods that are simple, ready of application, and easy of comprehension. After discussing the probable causes of the prevalence of urinary calculus among the natives of India, and the reasons why lithotomy is likely to be preferred by them to lithotrity, he cites a list of 84 operations by Dr. G. Grant, at the Futtehgurgh Dispensary, N.W.P. of India, all of which were successful; and he then proceeds to describe the very simple, and apparently very successful, methods of operating pursued by the native surgeons for the removal of stone in the bladder. There is certainly some force in his remarks as to the influence—embarrassing rather than otherwise—of the very minute and circumstantial details into which some authors are so fond of entering when describing this operation. He says that, had some of the writers witnessed, as he has done, the facility and readiness with which it is performed by the natives of India, who never opened a book on anatomy, and know as much about the veru montanum as they do about the man in the moon, they would be less exacting in their requirements, and more disposed to trust to the commonplaces of surgery and the dictates of common sense. Be this as it may, the description of the rough and

simple instruments used by the native surgeons in their operations and the success of their procedures—a success, according to Mr. Curran, of 96 per cent. of their cases—is certainly curious and worth reading. His account is illustrated by plates of the weapons used, and a representation of the operation as performed by a native surgeon in the presence of a number of native students and others. The author's own practice as a lithotomist seems also to have been pretty successful; and his remarks are sensible and to the point, and calculated to encourage young surgeons to rely upon common-sense rules and that amount of judgment and acumen which men of ordinary intelligence and dexterity ought to possess.

Our Baths and Wells. The Mineral Waters of the British Isles, with a List of Sea-bathing Places. By JOHN MACPHERSON, M.D., &c. Small 8vo, pp. 205. Macmillan and Co. 1871.—It is not long since Dr. Macpherson issued an excellent little work on the Baths and Wells of Europe, in which he gave concise and useful information relative to the nature and the therapeutic uses of the various mineral waters and spas of the Continent. He has now, in some 200 pages, furnished the practitioner and the public with a mass of information respecting the spas in our own country. The author deals successively with the composition of various waters, the mode of selecting a suitable spa in particular ailments, and then proceeds to deal with saline, thermal and earthy, salt, chalybeate, and sulphur waters and wells in detail, under the three heads of England, Wales, and Scotland. Dr. Macpherson knows what he is writing about, and his little book is a very acceptable addition to the library of the medical practitioner, especially for reference.

Sulle Dimande d'Apertura di Nuove Farmacie in Roma, dal dott. Gregorio Fedeli, &c. Pamphlet. Rome. 1871.—This is a report to the Roman authorities, under the new order of things, touching the licensing of new chemists' shops, and the removal of some to other portions of the town. The interest to the English reader is the bigoted tone of the author respecting the settling as pharmaciens, in the eternal city, of any foreigners, or even Italians, who do not rejoice in a Roman birthright. That the practice of pharmacy should be well regulated is very wholesome, but this may be done without illiberality. Dr. Fedeli is mistaken in supposing that pharmacy is subjected to no restriction in France; moreover, he does not know that in this country there is a Pharmaceutical Society. The author advocates the augmentation of the number of pharmacies in the new capital of Italy, seeing that the population will now increase rapidly; but wishes the new licences to be equally divided between natives of Rome and other Italian subjects. He proposes also to exclude altogether foreign pharmacists. Whether this selfish suggestion will be acted upon remains to be seen.

THE THIRTEENTH REPORT OF THE MEDICAL OFFICER OF THE PRIVY COUNCIL.

THIS report is a much shorter one than usual, consisting of only some seventy pages. It is, however, a very important one. After explaining that relapsing fever, scarlatina, and small-pox were the epidemics of the year, it gives a tabular summary of 66 inquiries instituted by inspectors into the insanitary condition of various places, and the particulars of 134 cases in which, by means of correspondence, attention was directed to evils in different parts of the country. The matter calling for inquiry was invariably the existence of some infectious disease, known mainly through the Registrar-General's returns. Of course the old story of fouled air, fouled water, and fouled soil is told once more. It seems, as regards the question of vaccine supply, that the number of applications for lymph were, in the year 1870, 15,228; and that 140,927 separate supplies were sent out in reply, some of the charges equalling four and seven pints apiece. Mr. Simon makes some special comments on the question of medical reform to which we shall refer particularly at another time. He declares that the Pharmaceutical Society, in failing to make proper regulations for the keeping and selling of poisons, has been guilty of a breach of the implied contract under which the Legislature in 1868 gave powers and privileges to the Society. The pathological work of the department has been carried on successfully by Dr. Sanderson, and he contributes to the Appendix a very important report upon "the origin and distribution of microzymes (bacteria) in water, and the circumstances which determine their existence in the tissues and liquids of the living body," and in continuation of his researches into the intimate nature of pathology. The object of Dr. Sanderson's investigations was to determine the nature and origin of microzymes, and to show what influences their development, with a view of getting nearer to the understanding of the morbid processes which go on in the living body, and the part that microzymes play in connexion therewith. Dr. Sanderson's experiments go to prove—(1) That so long as the germinal matter of microzymes is excluded from animal fluids and tissues, the latter withstand decomposition for very long periods, whilst the slightest contact with media containing this material at once determines septic changes. Hence microzymes excite putrefaction, if they are not the sole cause, and they do so by appropriating the oxygen of the tissues. (2) That fungi are not developed from microzymes; that they are quite distinct. (3) That microzymes, unlike fungi, do not appear in superheated liquids, provided that the air with which they are in contact has also been superheated. (4) That the germinal matter whence microzymes spring does not exist in ordinary air; but (5) that it is derived from impure water, or from the contact of surfaces which have not been superheated. (6) That microzymes are not generated spontaneously, but exist, where they seem to be absent, in the minutest forms. (7) That bacteria are deprived of their power of further development by thorough desiccation. Dr. Sanderson suggests as a test for water, the addition to a small quantity of suspected water of one drop to five centimetres of Pasteur's solution, in an éprouvette first superheated and then filled with the solution, and protected by cotton wool. In six days, if the water be "zymotic," the contents of the tube become "hazy." Experiments with the London waters show that filtration does little to destroy the zymotic power of water. It appears that the normal liquids and tissues of the body do not possess zymotic properties, though "inflammatory products" do. Dr. Sanderson deals a heavy blow to "spontaneous generation." Mr. Simon sums up his report with a reference to the unsatisfactory state of the law concerning the sanitary administration of the country, which is so discouraging to sanitarians, and is attended with such great waste of life. Mr. Simon, we are glad to find, presses this matter home to the Government with telling argument.

Foreign Gleanings.

RUPTURE OF THE HEART.

THIS unusual cause of death was observed at the Asylum of Evreux, France, by M. Védié. The patient, a woman affected with dementia, was admitted March 5th, 1870. The pulse was very irregular, but no abnormal cardiac murmur was heard. She died suddenly on the 3rd of June, after being prostrated some twenty-four hours, a state contrasting strongly with her usual agitation. On proceeding to the autopsy the limbs were found cyanosed, and on making a small opening into the pericardium a jet of black blood took place. When this sac had been carefully slit up, the heart was found surrounded by a large clot, the thickness being greater at the base than at the apex. On removing the clot, a hole a little larger than a shilling, round and regular, was found on the anterior surface of the right auricle. The hole was situated on the right third of a reddish-brown spot, of a square shape, and seemed to be

owing to a softening of the muscular fibres. The whole heart was thin and fatty. There was an aortic insufficiency from cretaceous deposits on the valves, but, nevertheless, no regurgitating bruit had been heard.—*Gazette des Hôpitaux*, July 13th, 1871.

PARACENTESIS THORACIS IN PLEURITIC EFFUSION.

M. Constantin Paul has published, in the *Bulletin de Therap.* (July 30th, 1871), eight very interesting cases, in which it is plainly evident that early tapping of the chest in undoubted pleuritic effusion is far more favourable than diaphoretics, derivatives, &c. The tapping, as was the case with Trousseau, is not used as a mere palliative, but in view of an eventual cure. M. Paul uses Reybard's instrument, which is fitted to a bag of goldbeater's skin, and has found that no air penetrates the chest.

REGENERATION OF THE SPINAL MARROW.

Messrs. Masius and Van Lair, says the *Journal de Méd.* of Brussels, October, 1870, have removed a piece of the spinal marrow from frogs. Motor and sensory power, abolished for a time, returned when the two ends of the medulla had been brought closer by an intermediate substance. It would appear that the same phenomenon has been observed upon the guinea-pig and the rabbit.

STRANGULATED DIAPHRAGMATIC HERNIA; DEATH; AUTOPSY.

M. Védié, house-physician to the Asylum of Evreux, France, has published such a case in the *Gaz. des Hôpitaux*, No. 38, 1871. The patient was affected with mania, and died with all the signs of internal obstruction. On a post-mortem examination the angle between the transverse and descending colon was found filled with gas, and protruding through the diaphragm. The stomach was pushed to the right side under the liver, and the small intestines, together with the ascending and transverse colon, both enormously dilated, lay on the descending colon. The cæcum was enlarged to the size of an ordinary stomach, whilst, on the contrary, the patient's stomach had shrunk to the size of the normal cæcum. Adhesions had formed between the lower portions of the herniated knuckle and the diaphragm, the opening in the latter being the size of a half crown, and lying between its fibres.

TABLE COMPILED FROM RETURNS OF THE LICENSING BODIES FOR 1870.

LICENSING BODIES.	QUALIFICATIONS.	No. OF EXAMS.	No. PASSED.			No. REJECTED.		
			1st Exam.	2nd Exam.	Final.	1st Exam.	2nd Exam.	Final.
Royal College of Physicians, London	Membership	3	3	...	17	...	...	4
	Licence	2	...	...	51	2	...	13
Royal College of Surgeons, England	Fellowship	2	62	...	26	22	...	6
	Membership	2	404	...	307	187	...	64
	Licence in Midwifery	1	...	...	8	...	...	3
Society of Apothecaries, London	Licence	2	189	...	204	50	...	46
University of Oxford	M.B.	2	3	...	2	2	...	...
	M.D.	Essay	...	...	...	...	...	...
University of Cambridge	M.B.	3	16	6	11	3	4	5
	M.D.	Essay	...	...	...	...	...	...
	M.C.	1*	...	...	...	...	...	1
University of Durham	M.B.	1	...	...	1	...	...	...
	M.D.	Essay	...	...	...	...	...	...
	L.M.	2	...	...	...	...	...	...
	M.C.	2	...	...	...	...	...	...
			1st M.B.		2nd M.B.			
University of London	M.B.	2	34†	...	24	22	...	...
Royal College of Physicians, Edinburgh	Licence	2	9	...	107	6	...	30
Royal College of Surgeons, Edinburgh	Licence	2	1	...	41	3	...	9
R. Coll. Phys. & R. Coll. Surg. Edinburgh	Licence in Med. & Surg.	2	41	...	80	34	...	34
R. Coll. Phys. Edin. & Fac. Phys. Surg. Glasg.	Licence in Med. & Surg.	2	6	...	19	1	...	10
Faculty of Physicians and Surgeons, Glasg.	Licence	2	38	...	24	28	...	26
University of Aberdeen	M.D.	...	...	...	...	...	...	...
	M.B. and M.C.	3	55	36	32‡	9	5	6
	M.B.	...	...	...	...	...	...	...
	M.D.	...	...	...	...	...	...	...
University of Edinburgh	M.B. and M.C.	3	87	84	58§	42	33	15
	M.B.	...	...	...	...	...	...	...
	M.B.	3	34	39	43	15	11	11
University of Glasgow	M.D.	...	1	...	3	...	...	...
	M.C.	...	...	...	...	...	...	...
University of St. Andrews	M.D.	1	...	...	10	...	...	...
King and Queen's Coll. Phys., Ireland	Licence in Medicine	2	...	...	97	2	...	11
	Ditto in Midwifery	1	...	...	78	...	...	17
Royal College of Surgeons, Ireland	Licence	...	118	96	96	36	12	16
	Fellowship	3	8	8	8	1	1	1
	Licence in Midwifery	...	...	...	13	...	...	1
Apothecaries' Hall, Ireland	Licence	2	20	...	19	2	2	...
			1st M.B.		Deg. M.B.	1st M.B.		Deg. M.B.
University of Dublin	M.B.	3	10	...	31	63¶	...	2
	M.C.	...	...	...	17	...	...	4
Queen's University, Ireland	M.D.	2	81	...	42	54	...	8
	M.C.	1	...	...	32	...	...	...
	M.D. and M.C.	...	...	...	...	...	...	...

* Preceded by the 3 M.B. Examinations.
† Of this number, 2 were examined in Physiology only, and 2 passed without Physiology.
‡ Of these, 30 took M.B. and C.M., and 2 M.B. alone.
§ Of these, 50 took M.B. and C.M., 4 M.B. alone, and 4 M.D. In addition, 28 M.D.s gave in their Theses for M.D., which were approved by the Medical Faculty, and they were accordingly promoted to that degree.
¶ Not passed in all subjects.

THE LANCET.

LONDON: SATURDAY, AUGUST 5, 1871.

ANYONE who has attentively watched the pulse of public opinion during the last week cannot but have noticed how little real value seems, after all, to have been placed upon the new Order of Council which has been issued with a view to prevent the importation of cholera into this country. The public have evidently learned the lesson of former epidemics—that it is not so much the keeping of the cholera poison out of the country that is needed, as the removal of those conditions, in the fouling of our water, our air, and our soil, which court and foster the fuller development of the disease when once it finds its way to our shores. The cry for a pure water-supply echoed from both Houses of Parliament at the first alarm of approaching mischief is a sufficient indication of what is really needed. In the face of a feeling so in accordance with the truth, and of a conviction of our unpreparedness to resist the cholera should it come, how really sad it is to contemplate the utter barrenness of the dying parliamentary session as regards any real improvement in the sanitary administration of the country. The importance of the new Order in Council, with respect both to its speedy issue and the powers and directions it gives to local authorities, cannot be overstated. It is eminently satisfactory, but it is only meeting the difficulty half-way. How long shall we turn a deaf ear to the plainest teachings of science, and attempt to stifle the bitterest experiences of the past, which may yet be speedily revived by the cloud which is hovering over us? We have only to call to mind the state of such towns as Liverpool, Leeds, Hull, Oxford, and many others, to realise how little true progress we have made in sanitation of late years, and how divided and disconnected are the health authorities of the country. Mr. SIMON has not been wanting in duty. No one could have more resolutely or persistently pleaded the cause of the sanitarian. In his Report just issued he makes another eloquent appeal to the Legislature to take action upon the recommendations of the Royal Sanitary Commission. He may well say that the present state of things not only creates extreme difficulty, but discourages persons engaged in sanitary administration, not to mention the large and constantly increasing waste of human life. The deaths in the country still continue to be a third more than they would be if the sanitary laws were properly directed against the continued operation of known preventable causes of disease. Linked with this excessive death-rate is a mass of avoidable sickness which lays the foundation of the physical deterioration of the race—of the workers of the population especially. The terrible and continuous tax on human life which our Legislature year by year passes by unheeded falls upon the helpless section of the community—upon the poor, the ignorant, and the immature; and, adds Mr. SIMON, those who through dependency on others or ignorance cannot themselves effectually remonstrate against the miseries they endure—miseries that certainly foster evils of a moral kind. We entirely believe, with Mr. SIMON, that education is little likely to penetrate into districts and among people unless with amended sanitary laws; nor human life to be morally raised while, physically, it is so degraded and squandered. Epidemics will still flourish in our midst so long as we do not institute a comprehensive system of sanitation, and work it out in its details efficiently. Orders of Council may check the march of disease for a while; but they do not touch the real danger, nor remove the causes that render epidemics prevalent amongst us.

THE work of our Licensing Bodies has, until very lately, been little known to the profession. Sir JOHN GRAY'S returns to Parliament last year, of which an abstract may be found in THE LANCET for August, and similar returns made to the Medical Council since 1867, enable us somewhat better to understand the general working of the system which commits the examination of medical students to nineteen different bodies, most of which have the power of granting more than one qualification. Those returns throw important light on the state of the education of the candidates presenting themselves for examination, and therefore indirectly on the state of medical teaching; and they inform us accurately and in detail of the bodies to which students repair, whether for mere licences or for those higher degrees which carry some distinction with them. Before trying to extract a few particular lessons from these returns, we may briefly summarise them thus:—The qualifications granted in the year 1870 in the United Kingdom were 1501. Of these the English bodies granted 651, the Scotch 417, and the Irish 433. The number of persons who failed in their *final* examinations, and therefore did not receive qualifications in the United Kingdom in 1870, was 343: in England, 142; in Scotland, 141; in Ireland, 60. In the same year (1870) 1160 students were registered in the United Kingdom. The distribution of these among the schools of the different parts of the United Kingdom is not given this year, as it usually is; but we may take the previous year as a guide. The number of students was almost the same—1164; and of these 530 were registered in England, 317 in Scotland, and 317 in Ireland. One feature of the Irish qualifications should be noted: 91 of the 433 Irish qualifications returned were in midwifery. Subtracting these, there remain only 342 Irish qualifications. In Scotland no special midwifery qualifications are returned; and only 8 in England, given by the College of Surgeons.

Three or four bodies do the great bulk of the licensing work. In England 307 candidates passed the examination for the membership of the College of Surgeons, and 64 did not pass. In 1866, 353 candidates passed, and 52 did not pass. And yet whereas in 1870 there were probably 530 English students, in 1866 there were only 457. In other words, with a considerable increase in the number of English students, there is a large decrease in the number of persons applying for the diploma of the English College. The same is true of the Apothecaries' Hall. In 1866 there were 284 applicants for the licence; of whom 254 passed, and

30 were rejected. In 1870 there were 250 applicants; of whom 204 passed, and 46 did not pass.

In Scotland, the body which grants the largest number of licences is the College of Physicians: 107 candidates passed the examination for the separate licence of this College in 1870, and 30 did not pass. For some years there was a great run upon the licence of the College, even by men who had diplomas of equal legal value as medical qualifications. The demand is perhaps to be associated with a notion that the licence of the College conferred the title of Doctor. The next favourite licence in Scotland is the joint licence of the two Edinburgh Colleges, amounting to a double qualification. In 1870, 80 candidates for this examination passed, and 34 were rejected—a large proportion, upon which we shall presently remark more particularly. Then, in addition to 24 licences in Surgery granted by the Faculty of Physicians and Surgeons in Glasgow, and 19 instances in which the joint licence of the College of Physicians and of the Glasgow Faculty was granted, there are the numerous degrees of the four Scotch Universities. The chief of these is the double degree in Medicine and Surgery, the M.B. and M.C. In the University of Aberdeen 32 candidates in the final examination for this double degree passed and 6 failed to pass. In the University of Edinburgh 58 passed and 15 failed to pass. In the University of Glasgow 43 candidates passed the final examination for the degree of M.B. and 11 failed. Strange to say, only 13 Doctors of Medicine were made by all the Universities of Scotland in the year 1870—3 by the University of Glasgow and 10 by the University of St. Andrews; that is to say, according to these returns, neither the University of Edinburgh nor of Aberdeen conferred this degree. We shall probably comment on this point on another occasion.

In Ireland, the King and Queen's College of Physicians and the College of Surgeons compete closely in the number of licences conferred, the King and Queen's College having passed 97 candidates in the final examination and rejected 11, and the College of Surgeons having passed 96 and rejected 16. The former College granted a licence in Midwifery to 78 candidates, and the latter College to 13. At the University of Dublin 31 candidates passed the final examination for the M.B. degree and 2 were rejected. The rejections at the first examination for this degree were remarkable. It does not appear that the M.D. degree was conferred in this University. In the Queen's University 42 candidates received the degree of M.D. and 32 the degree of M.C.

The most noticeable thing in these returns is the large proportion of students who come to grief in their *first* examination; and this not only in the examinations for degrees and high qualifications, but in those for the lowest qualifications. Next to this point in significance is the inequality of the proportion of rejections by different bodies. In the first examination for the membership of the English College of Surgeons, while 404 men passed, 187 failed, or nearly one-third. In the case of the Society of Apothecaries, 189 passed and 50 failed. But the most remarkable number of rejections for lower qualifications is in the case of candidates in the first examination for the joint licence of the Edinburgh Colleges: here, while 41 passed, 34 were rejected. In the case of the Glasgow Faculty, while 38 passed, 28 were rejected. In the Aberdeen University, in the first examination 55 passed, and only 9 were rejected; in Edinburgh, 87 passed, and 42 were rejected; in Glasgow, 34 passed, and 15 were rejected. In the Irish College of Surgeons, 118 passed, and 36 failed. If the returns concerning the King and Queen's College are not defective, 97 candidates passed the final examination, and only 11 were rejected. There were only 2 rejections in the first examination. In regard to the M.B. of Dublin, only 10 candidates passed the first examination, while 63 failed in one or more of the subjects! In the Queen's University, in the first examination for the M.D., 81 passed, and 54 failed. Whatever be the case with the Universities, it will not be maintained that the Colleges are unduly hard or unwilling to pass men. We can only conclude that candidates come up to their first examinations lamentably unprepared in the fundamental sciences upon which all their future competence depends. It is a most serious matter, and might well stimulate all earnest men in the profession to inquire into the causes and the cure of such a state of things. We hear a good deal of the defective knowledge of the men who are allowed to pass. But we are in want of particular information of the ignorance which prevents candidates passing their first examinations. A strict inquiry into the nature of it is one of the urgent duties of the Medical Council.

The abeyance of the power to grant the degree of M.D. on the part of nearly all our Universities is a very striking feature of these returns. It may be, as we have already suggested, that the returns are incomplete. But, as they stand, they show that the Universities of Oxford, of Cambridge, of Durham, of London, of Aberdeen, of Edinburgh, and of Dublin did not grant in one instance the degree of M.D. in 1870. Of the 55 Doctors of Medicine reported as made in the year, no less than 42 were made by the Queen's University in Ireland, 10 by St. Andrews, and 3 by the University of Glasgow. We shall reserve our reflections on this curious state of matters.

THE new Year-book of Medicine by Professor STRICKER, of which the first two parts have just been published, contains a series of papers that indicate in a very remarkable manner the direction that pathological research is taking in the hands of accomplished histologists, and the important part played by the microscope in establishing the foundations of our knowledge in that essential branch; whilst at the same time it demonstrates that patient observation and comparison are slowly displacing crude theory and illogical conclusions, and affords some grounds for hope that the day will come when medicine will be no longer stigmatised as an empirical art with little claim to the title of a science.

The two parts contain sixteen articles; and of these no less than eight are devoted to most minute and careful descriptions of the effects of inflammation on different structures. Thus Dr. HEIBERG gives an account of the process by which the corneal epithelium is regenerated, and Dr. HAUSEN the results of inflammation in the corneal tissue; Dr. GÜTERBOCK the effects of inflammation of

tendons; Dr. YEO the pathology of inflamed lymphatic glands; STRICKER himself the nature of the poison of pus, and another paper in conjunction with Dr. ALBERT—an account of traumatic fever; Dr. LANG gives the pathology of inflammation of the bones; Dr. KIMDRAT a paper on the inflammatory changes in the endothelia of serous membranes; and Dr. ALBERT one on inflamed hernia. We propose to notice several of these papers separately.

Dr. HJALMAR HEIBERG's (of Christiania) paper on the Regeneration of the Corneal Epithelium, which leads off the serial, contains several important points. A paper recently appeared in VIRCHOW's Archiv by JULIUS ARNOLD on the same subject, who came to the conclusion that the new cells which replaced the old, when these had been detached, were derived from a finely granular blastema that changes into protoplasm, and that in this protoplasm the new cells arise by a process of free cell-formation. The correctness of this conclusion is contested by Dr. HEIBERG, who maintains the view that the young cells are developed from the old, in which certain changes have taken place. His mode of procedure was to scratch the surface of the cornea with a cataract-needle in animals (frogs, birds, rats), and, after the lapse of from eighteen to forty hours, to remove the eye and examine the cornea both by means of fresh sections and after careful preparation in solutions of chloride of gold (maceration for from three to five minutes in a one-half per cent. solution of the salt). In certain preliminary experiments it was found that the injured part *immediately* after the injury presented sharply-defined irregular borders; after six hours the margins were considerably flattened, so that the boundary of the abrasion was much less distinct. After eighteen hours it was difficult to tell the seat of the injury with the naked eye, and its diameter had become reduced to one-half or one-third; and after forty hours recovery was complete. He convinced himself by microscopic investigation that the process of regeneration of the epithelium proceeds from the margins of the abrasion, the layers of cells immediately bounding the seat of injury becoming elongated, and, as it were, sending forth processes towards its centre; so that the margins are rendered very oblique, whilst at the same time the exposed surface of the cornea is raised considerably above the level of that which is still covered by the cells. Sometimes the cell-processes become detached and contract into glassy, clear, rounded masses; but he has never noticed the free formation of cells in a blastema, and does not believe that the white corpuscles of the blood or "migrating cells" play any part in the regeneration of the cells, though he has occasionally met with them between the epithelial cells and in the substance of the cornea in the vicinity of the injury. In no single instance has he observed any appearance leading him to think that they undergo conversion into epithelial cells. The processes thrust forth by the cells, as above mentioned, were found, from observations extending over many hours, during which the cornea was placed in a current of serum, to undergo slow changes of form and size, the movements however being in no way comparable in activity to those of amœboid cells. The cells situated at a greater distance from the injured part often became granular, and their margins more distinct. In rats both the upper flattened and the deeper, more columnar cells seemed alike to thrust forth the processes destined to cover the floor of the injured part. Dr. HEIBERG expressly remarks that he has not satisfactorily followed the separation of the cell-processes to form new cells, which again push out new outgrowths, to be again detached, though he obviously thinks this is what really occurs. Dr. HEIBERG gives several drawings to illustrate the points mentioned in his paper.

THE public have for some time taken a very considerable interest in the administration of the metropolitan hospitals. It is but a few months since the pages of the leading daily journals were much occupied by reports, evidence, and strictures on the conduct of the governing body of one of the richest charitable institutions in London. They chronicled a few weeks ago the opening of another establishment that was popularly presumed to be wealthy, but the authorities of which have lately made a loud and somewhat undignified appeal to the charitable for furniture and fittings, so as to enable them to start fair. We know that all the unendowed London hospitals are continually crying out for funds, and that there is a general and increasing disposition to spend large sums in augmenting the number of wards and beds, and so ostensibly to furnish more extended relief to the sick poor of this huge city. Appeals on this head are being made daily, and, thanks to the liberality of our wealthy citizens, are seldom made in vain. But is it not worth while to consider whether the present principle of hospital extension (and we may add, in deference to some authorities, of ornamentation) is sound, or capable of improvement? Is it not possible, nay very probable, that we should do more good, and heal our sick at a more speedy rate, by restricting the areas of the metropolitan establishments, by building convalescent hospitals in the suburbs, and by drafting off the patients to these latter buildings as soon as they were able to be transported thither? Local and suburban railways, over-head and under-foot, are gradually finding their way to our very doors, and already lines exist within a few yards of at least seven large hospitals. It is also well known to medical men, and to others who have made the laws of health their study, that no amount of cubic space in hospital wards can neutralise the disadvantages under which patients labour who perforce stay to convalesce in a building situated in the midst of a great city. It is hardly necessary to inform our readers of the fact that grave cases of accident and acute disease constitute but a minority in the sum total of hospital inmates, and it is probable that at the present moment more than half the patients of our London institutions could be removed into the country or the suburbs without risk. In point of fact, there can be little doubt that a sufficiency of hospitals now exists to supply the wants of all eligible candidates who may present themselves for admission when suffering from acute disease or serious accidents. Economy as well as efficiency should always be considered in the administration of hospitals as of other public institutions; and as it is cheaper to cure a convalescent patient by feeding him liberally rather than sparingly, so it is cheaper to give him the opportunity of breathing a rural rather than an urban atmosphere. The

convalescent hospitals at Walton-on-Thames, Mitcham, and Hendon, that at Margate, and the two "homes" so admirably carried on under the auspices of Mrs. GLADSTONE and Miss MARSH, cannot of course afford one tithe of the accommodation required for patients to whom pure air is of far greater consequence than medical advice or physic. A large proportion of patients linger unnecessarily in hospital for lack of this desideratum. In cases of fever and many other acute diseases, removal to a pure atmosphere will hasten the cure by two or three weeks; and in other maladies of a more chronic nature the balance of valetudinarianism or comparative health may be struck by the presence or absence of this single condition. These are facts about which doctors do not differ, and they are specially worthy the consideration of those who subscribe so munificently to our public hospitals, and those also who are charged with the administration thereof.

Medical Annotations.

"Ne quid nimis."

THE BRITISH MEDICAL ASSOCIATION.

THE annual meeting of the British Medical Association is to be held next week at Plymouth, when we have no doubt the medical men of the "three towns" will exert themselves to welcome their professional brethren with true Devonian hospitality. As these meetings year by year confessedly partake more of a social than a scientific character, we regret the less that the scientific programme put forward by the managers of the Association is decidedly feeble. The two addresses—in Medicine by Dr. George Johnson, and in Surgery by Professor Lister—are the solitary *pièces de resistance*, and will no doubt prove of interest; but we must be pardoned for saying that both these gentlemen have been such prolific contributors to contemporary medical literature that it is difficult to suppose they can have any great novelties to propound at Plymouth, and it does not require prophetic powers to predict with tolerable certainty what the gist of the addresses will be. The published list of papers to be read in the four sections of Medicine, Surgery, Midwifery, and Public Medicine, is also very small at present; but this, no doubt, will be a relief to everyone, and particularly to those who desire to spend their time in enjoying the sights so liberally provided for them.

The first general meeting of the Association on Tuesday evening would appear to promise most excitement, for, in addition to the President's (Mr. Whipple) address of welcome, there will be proposed some fundamental alterations in the laws of the Association, which appear not unlikely to lead to considerable discussion. Among other things it is proposed to make an alteration in the office of the Secretary of the Association, who shall live in London and devote his whole time to the business management of the Association and the *Journal* office, without, however, being the responsible editor. *Apropos* of the subject, we observe that Mr. Hodgson, of Brighton, has, in a letter to the *Journal* of the Association, given in detail the charges against the present Secretary, Mr. Williams, which were contained in a confidential document to which we alluded some weeks back. It appears that facts came to the knowledge of Mr. Hodgson, as to the management of the Association, which "convinced him that either reform or financial disaster must soon ensue." The "Committee of Council" was forced at length to take up the matter, and hence the movement in favour of a responsible officer residing in London. We think the Committee of Council shows its wisdom, though we doubt its getting a first-class man at the price offered; but we shall be curious to know how the hitherto ardent supporters of Mr. Williams will face the meeting on the 8th, after refusing for some years to allow any question to be raised as to the manner in which he performed his duties and the emolument he received.

We observe that, in addition to the numerous local attractions, the medical men of Torquay invite the members of the Association residing beyond fifty miles from that place to a luncheon on Saturday, August 12th. "Their object in this limitation as to distance is that of furnishing an opportunity to strangers unfamiliar with Devonshire to become acquainted with Torquay and its immediate neighbourhood." As the journey to Plymouth is an expensive one, we may mention that excursion trains giving nine or sixteen days in the West are run weekly from the metropolis at very reasonable rates. The hard-worked medical man who can spare the time for a run through Cornwall or North Devon will not regret the journey, we believe, but will return recruited in mind and body for the daily labours of his arduous career.

THE BLUE-COAT SCHOOL.

WE recently paid a visit to Christ's Hospital, and had much pleasure in finding that, since our previous visit, very much has been done to improve the hygienic condition of the school. There is now a large and very excellent gymnasium adjoining the school property in Newgate-street, to which the boys pay regular and periodical visits, and in which they may throw off their cumbrous gowns and exercise their limbs. An addition even more valuable than the gymnasium is the new swimming-bath, which has been open now for three years. This bath is beautifully built, large enough to accommodate a hundred boys at a time, and is remarkably well lighted and ventilated. Bathing has always been encouraged by the authorities, and time was when in the summer months long strings of "blues" used to wend their way to the "Peerless Pool"—an old and time-honoured swimming-bath in the neighbourhood of the City-road. This is now a thing of the past, and at the present time every boy is enabled to bathe twice a week throughout the entire year, ample provision having been made for heating the water during the winter months. The governors, indeed, seemed determined that the virtue which is said to be second only to godliness shall be well observed, for in addition to the swimming-bath they have provided nearly thirty separate warm baths, in which once in every fourteen days each boy is enabled to scour himself to his heart's content. These additions do great credit to the governing body, and now they have been made we wonder how the school could have gone on so long without them, for the ordinary lavatories are of a most primitive kind, consisting of nothing but a row of taps overhanging a metal trough, and somewhere in the region between the tap above and the trough below the blue-coat boy was, and is still for the matter of that, expected to wash himself. We are glad to hear that the school has recently acquired a cricket-ground in the neighbourhood of Holloway. When the boys go to cricket they are allowed to discard their mediæval costume, and assume flannels.

The health of the school seems to be excellent. They have passed through the two epidemics with which London has lately been visited almost unscathed. They had not a single case of scarlet fever among the boys, and only two very mild cases of small-pox. Some months ago everybody

in the building was vaccinated, and it may be interesting to anti-vaccinationists to hear that this wholesale "blood-poisoning" was in no single case followed by any ill effects whatever.

The Blue-coat School has to a small degree become infected with the military spirit of the age, and the boys are regularly drilled, and possess a brass and a fife and drum band. These various improvements cannot fail to influence very favourably the physical well-being of the lads, and to counteract in a considerable degree the restraint which the thick, senseless, cumbrous petticoats must entail upon the free movements of the limbs.

REVACCINATION FROM REVACCINATED PERSONS.

WE direct the attention of the profession, and especially of all vaccinators, to the communication by Dr. Barbour, of the Stockwell Fever Hospital, of serious moment and great scientific interest, which appeared in our last week's issue. The use of the lymph of revaccination has generally been condemned and discontinued; but there has been a want of definiteness in stating objections, and some high authorities, to our knowledge, have been disposed to think that such lymph from well-formed vesicles was as effective as the lymph of a first vaccination. We venture to think that, after the profession has duly considered the facts now published by Dr. Barbour, vaccinators will hesitate before incurring the responsibility of vaccinating with secondary lymph. Dr. Barbour has seen, we believe, about 1600 cases of small-pox; and it has fallen to his lot to see 9 cases in probably all of which small-pox has followed revaccination with secondary lymph, and not a single case in which it has followed revaccination with infantile lymph. It is true nine cases are not many; but, taken in connexion with the negative fact of none after proper revaccinations, they are significant.

The first case related by Dr. Barbour is very striking—that of a family in which the mother and one child were revaccinated three months previously with lymph taken from an adult under revaccination, two other children being vaccinated by another operator with infantile lymph. The mother took small-pox, and died. The child who was revaccinated with the same lymph as the mother also took it badly. The two other children did not take it, though they slept in the same room with the mother and sister. The second case is almost equally remarkable. A girl, Kate R——, revaccinated from an adult, took small-pox; two other children living in the same house were revaccinated and one was vaccinated from the arm of an infant living next door. None of these, though living in the same house with Kate R——, took the disease. Dr. Barbour's experience powerfully confirms the advantage of revaccination; but it goes to show that revaccination with secondary lymph is not nearly so protective as with primary lymph. It is satisfactory that all these revaccinations have been traced to the practice of one medical man, and that the whole facts have been carefully inquired into by an observer so intelligent and trustworthy as Dr. Barbour.

Most of the objections that have been made to revaccination from secondary lymph have had reference to the severe character of some of the after-effects. But there has been great difference of experience in regard to this point; some, as Dr. Seaton and Dr. Farquharson, describing erysipelas, abscesses, &c.; others, as our correspondent Dr. Newham, reporting that revaccination with secondary lymph was not more apt to be followed by such consequences than ordinary vaccination, and gave vesicles as satisfactory as others. Dr. Barbour's cases raise another question—namely, the protection conferred by secondary lymph. And this is the point in regard to which the books are very unsatisfactory in their information. Dr. Newham reports that his revaccinations from secondary lymph have stood the test of the late epidemic. This negative experience may still be true; but, in the face of the positive and striking experience recorded by Dr. Barbour, it does not count for much, and it seems to us that henceforth a medical man will incur a considerable responsibility who revaccinates with secondary lymph.

AMBULANCE AT THE PARK OF ST. CLOUD.

THROUGH the energy of the eminent Austrian physician and hygienist, Baron Mundy, who acted throughout the siege of Paris as Director of the Ambulance of the Corps Législatif, one of the most perfect ambulances has been created in the reserved park at St. Cloud, and what was formerly the preserved garden of the Emperor. Our correspondent, Dr. William MacCormac, has been good enough to furnish us with the impressions made upon him during a recent visit to the ambulance in question. To reach it the visitor must walk up to the high ground behind the ruined château, through an avenue lined with marble statues and orange trees. Very clever surgery will be required to restore the former, for not a single statue has escaped damage; every salient point has been knocked off—fingers and toes, hands, arms, and even the heads of many have been broken away. The orange trees were of great age and beauty, but every one is either barked or dead. The ambulance has been located in one of the open spaces of the park, is surrounded by iron railings, and covers some six acres of ground. In the enclosure are eight baraques, containing two hundred beds, one-half only of which is intended for occupation at the same time, two beds being consequently reserved for each patient under all circumstances. These baraques are wooden sheds, completely open on one side, and with four windows on the other. They are about 100 ft. long, by 20 ft. broad, and about 10 ft. high to the eaves of the roof. Along the closed side are placed twenty-four beds, while opposite the beds the open side of the baraque is hung with curtains, which can either be drawn completely aside or stretched up on poles, like awnings. These curtains are never closed day or night in fine weather, and the patients may therefore be said to be treated practically in the open air. Instead of shutting off the outside air, even partially, by closure of the curtains—a proceeding which the patients dislike—an extra blanket is served out as required, to guard them against the effect of cold. There is a bath-room, separate water-supply with filters, and excellent ward furniture, with earth-closets to each ward. Offensive fluids are poured into a cistern through which a stream of water is constantly passing, and carrying everything away to some distance beyond the camp. No sponges are used; the wounds are irrigated by Esmarch's simple apparatus, and all dressings are burned immediately on removal; in short, the most exquisite cleanliness prevails everywhere. There is separate accommodation for administrative purposes. The dietary is on a very liberal scale.

The ambulance is intended to receive only the most serious cases of gunshot wounds, and of these about forty cases have been under treatment; the first having been admitted the last day in May. There have been fifteen or sixteen deaths, but a large number were dying on admission from pyæmia and other causes, such as hospital gangrene. "However bad," says Dr. MacCormac, "the patients might be, the wounds began to look more healthy soon after their arrival, and some truly astonishing recoveries have taken place. Not a single case of pyæmia or erysipelas has arisen in any case treated in the ambulance from the first.

The operations, too, have done well, from a case where a large portion of skin was transplanted to aid the healing of a rebellious ulcer on the calf after a shell wound, to a case of secondary resection of the knee-joint." Nothing could, in his opinion, be better calculated to secure successful results in the treatment of severe gunshot injuries than the plan adopted in the Ambulance of the Park of St. Cloud. Some few minor details might, perhaps, be capable of improvement, but otherwise it is worthy of attention as a model kind of ambulance.

THE AUTUMN CAMPAIGN.

THE present Government is, to say the least, very unfortunate. It is strong in design, but weak in execution.

"The best laid schemes of mice and men,
Gang aft agley."

We have nothing to do with purely political or military measures of course; still, it is not easy for anyone to close his eyes to the fact that precipitation and want of thorough appreciation of the obstacles to be surmounted have characterised the promised measures of the Ministry. The object of some of these measures, if judged in a social and sanitary light, was excellent; but as the influence and power of different classes increase, so will the difficulties of governing. In the matter of the Berkshire campaign, however, all the difficulties about the cost of providing transport and supplies for the troops might easily have been foreseen, instead of which the War Office has had to avail itself, in military language, of "the late harvest" as a "cover" from the attacks of its enemies. Lord Northbrook must have known from the first the difficulties in fixing on convenient spots for water-supply, and that it was impossible to drive cattle along the roads without violating the law. Lord Elcho, with a keen sense of irony, wishes to know whether the Medical Department considered the 20th of September was too late a period to go into camp. Supposing the Medical Department to have pronounced any such opinion, which is excessively unlikely, we can only hope that an invading army may pay as much respect to its objections as the Government would doubtless be very glad to do on this occasion. It might not be a bad thing for the health of the troops to allow the soldiers to be engaged by the farmers in getting in the harvest. We understand that a medical officer, Surgeon-Major Madden, has made a sanitary inspection of the proposed routes, halting-places, and camping-grounds, with the view of ascertaining the nature of the soil and probable water-supply, and that his report has been furnished to the authorities. It is, however, abundantly clear that the War Office is afraid to look its promise in the face. Not having counted the cost and estimated the difficulties, it has found it better, as well as easier, to promise than to fulfil.

SANITARY STATE OF MALPAS TOWNSHIP, CHESHIRE.

THE town of Malpas in Cheshire has just been inspected by Dr. Henry Stevens, one of the medical inspectors of the Privy Council. We learn that in a population of 962 there have been, since Feb. 7th, 1871, five deaths from enteric fever, the number of cases of fever recorded being 78. But Dr. Stevens says that, in all probability, there have been more than 90—or, in other words, that nearly one-tenth of the entire population has in the space of six months been stricken down by enteric fever.

The causes leading to such an amount of sickness are those which anyone conversant with such matters would at once assume to exist—namely, defective drainage, polluted drinking-water, tainted air, and the like. As regards the drainage, Dr. Stevens says it is very imperfect, consisting as it does in great measure merely of gutters from the backs of houses, which run into some adjacent field or into some neighbouring middens or laystalls. As regards the water-supply, it seems that there are some wells in the place, but they were dry at the period of the visit of the inspector. Considering that the first case of enteric fever (an imported one) died on February 7th, at the time of frost, though a thaw soon set in, and that about a month after a sudden outbreak of fourteen or fifteen cases occurred, Dr. Stevens seems to rely upon the water as distributing the poison. The present supply of water is from springs in the valley, supplemented by one on the hill called the Town Well, the water from which is extremely liable to pollution, both from its situation and mode of distribution, and on account of the peculiar manner in which it is raised. This is done by means of a pump, which is worked by a water-wheel (within two feet of the so-called well), the motive power of which is the water from a neighbouring sewage pool, the result being, as Dr. Stevens says, "that the splashing of the wheel throws the sewage to a not inconsiderable extent into the tank which collects the spring water."

In addition to the above insanitary arrangements, there are filthy middens and privies, and accumulations of refuse, slops, and garbage, there being no sign in the place of anything like a dustbin; and there is no attempt at scavenging or emptying the privies, except occasionally, when the stuff is used for gardening purposes, though at the time of inspection "every receptacle for filth was full enough."

With such a state of things as this report describes, it certainly behoves the Vestry, which appears to be the sanitary authority, to take immediate steps to carry out actively those numerous powers vested in it by the Sewage Utilisation and Sanitary Acts, as they provide fully for the amelioration of such conditions, which cannot fail to be most disastrous to those who are subjected to their influence.

VITALISM AT THE ACADEMY OF MEDICINE OF PARIS.

THE Academy has been engaged in an animated discussion on pyæmia; the two schools—viz., the iatro-chemical and the iatro-vitalist—being in presence. The first, as is well known, views the organism as passively submitting to germs or to decomposing fluids on the surface of wounds; the second considers the organism struggling and resisting more or less under the influences of traumatism. We need not dwell on the germ, dust, and noxious gases theories, as they are well known and ably defended; but as vitalists are few and far between both in this country and abroad, we will just quote a passage of a long and elaborate speech of one of the most eminent representatives of vitalism at the Academy. M. Chauffard says (*Union Méd.*, July 15th, 1871):—

"French surgeons have expressed the opinion that no relation exists between purulent poisoning and traumatic fever or the other febrile symptoms connected with wounds; whilst the Germans consider these relations perfectly intimate, going even so far as to look upon all the phenomena as of an identical nature, the apparent differences being only in degree. Truth is to be found in neither of these propositions, and lies in the pathogenic theory which I am defending, and which does not destroy the relations just mentioned. It may be shown that traumatic fever and malignant pyæmia, which are the opposite extremes of general traumatic symptoms, mainly exist through the participation of the living organism of the injured patient with the efforts at repair excited by traumatism. In the one case, this participation is of a normal and almost physiological character, guided by the healthy energy of the

economy and an harmonious and powerful plastic activity. In the other case this participation is of a distressing kind; the sound economy is overcome and plasticity destroyed by an unconquerable and final disintegration. Between these two extremes ordinary pyæmia finds its place, with varying forms and a greater or lesser degree of severity. This pyæmia is a transition or link between pure traumatic fever and malignant pyæmia. Hence the pathologist and clinical observers are led from one to the other by a chain of morbid facts and symptoms. But this connexion of phenomena does not in any way weaken the essential characters of malignant pyæmia; it strengthens them, on the contrary, gives the explanation of their existence, and exhibits them in their proper light. Traumatic fever and ordinary pyæmia may be described as life bent upon a struggle, and preparing a victory in spite of general disturbance; whilst in malignant pyæmia, life is hurried away and hastening to destruction. In that moment the primitive order of things is transformed, and the living mechanism assumes a new essence."

OUR EXPORTS.

THE wise and understanding people of this kingdom will soon find out that an epidemic affects commercial interests in more ways than one, and that some of our exports, small-pox to wit, do not find a market even in so dirty a country as Turkey. The Government of the Sultan has issued an order, indicating that lazarettos shall be established in all ports of the empire for the reception of the cases of small-pox that we are good enough to send them, free of duty, from this country. All vessels bringing the disease are to be fumigated and thoroughly disinfected before being admitted to pratique. We recommend shipowners (when they have leisure to think about such subjects) to calculate the injury done to British commerce at New York, Constantinople, and other large foreign ports, by the exportation of this article, and then to consider whether examination of crews before signing articles would or would not have been a good investment during the past six months. As it is, a British vessel is "suspected" at every foreign port, and nations familiar with dirt and disease laugh in their sleeves at the ignoble and impotent results of our sanitary legislation. We may soon have to include cholera amongst our exports.

THE CITY POLICE.

THE annual return of the health of the City police by their chief surgeon, Mr. Borlase Childs, F.R.C.S., shows that the force has during the past year fully maintained its health and efficiency. During that period the average strength of the force was 700, the admissions into the police hospital 328, the average daily sick 9·75, and the number of deaths 7. Four of these deaths were due to small-pox, which epidemic caused 11 admissions altogether. The death-rate has consequently been slightly in excess of last year, but the list of admissions and daily sick show a considerable decrease.

The several divisions of the City police show a variable amount of sickness; thus the divisions in Moor-lane and Fleet-street are more healthy than those in Bishopsgate-street and Seething-lane. This must depend on local influences, and these should be thoroughly looked into by the authorities.

During the year 132 candidates for admission to the force were examined by the surgeon, of whom 31 were rejected, the principal causes of rejection being varicose veins, flat foot, and muscular tenuity.

Mr. Childs again speaks in the highest terms of the system of hospital treatment adopted by the Corporation at his suggestion, the effect of which in reducing the number of sick has been very marked.

THE NEW PUBLIC HEALTH BILL.

THIS Bill, which was brought in last week by Sir C. Adderley and read a first time, has now been printed. It consists of 452 clauses, extending over 183 pages, and is one of the most important measures that has ever been offered for the consideration of the Legislature. The fact that there is no intention to carry this Bill beyond its present stage until next year relieves us from any immediate call for critical examination of its details. On the general question of principles involved, we should probably not find it necessary to raise the least objection to any part of the Bill, for it embodies the recommendations of the Royal Sanitary Commission, of which we have already expressed approval. In one respect it has, or we are much mistaken, an almost singular merit: instead of being content with repealing only such parts of former Acts of Parliament as are inconsistent with the new provisions, it simply repeals those Acts altogether, and re-enacts so much of them and no more as are hereafter to be observed. As soon, therefore, as it becomes law, we shall no longer have to hunt up the Public Health Acts, the Local Government Acts, the Nuisances Removal and Diseases Prevention Acts, the Common Lodging-houses Acts, the Sewage Utilisation Acts, and the Sanitary Acts, to find out our obligations and powers in respect of any of the matters therein referred to, but instead thereof we shall have one comprehensive Statute for our rule and guide. The constitution of districts and local authorities; the appointment of local officers; the consolidation of the central authority into one Local Government Board; the powers of local authorities in respect of water-supply, sewerage, scavenging, common lodging-houses, overcrowding, cellar dwellings, unwholesome dwellings, nuisances removal, offensive trades, infectious diseases, baths and wash-houses, hospitals, mortuaries, &c. &c., are all defined in the various clauses of this Bill. It is much to be desired that the Bill should be carefully considered and its provisions freely discussed during the recess, in order that it may undergo whatever modifications may be found necessary with a view to its speedy passage through the Legislature early next spring. Meanwhile the best thanks of the public are due to Sir C. Adderley and his colleagues of the Royal Sanitary Commission for the ability and pains they have bestowed on the preparation of this Bill.

HYGIENE AFLOAT.

WHEN cholera caught us in 1866, and found us then, as now, unprovided with any effective sanitary machinery, we set to work bravely in London, and the Health Department of the Privy Council, as well as the local authorities, prevented much, if they cured little. At that time it appeared to be nobody's business to look after the floating population, and so some thousands of one of the dirtiest and most careless sections of the community, living in places unventilated and unclean in an extreme degree, were permitted to foster cholera, or any other disease, without let or hindrance. The port of London is indeed parcelled out into the districts through which the river flows; but the health officers of these districts (with the exception of the City) utterly ignore the waterway, because they know that piecemeal work of this sort is entirely useless. And thus it came to pass that the care of one of the most important sections of London was at that time undertaken by the Seamen's Hospital Society, who organised a staff of medical inspectors, and paid visits to vessels in the river at the rate of from four to five hundred a day. There was, in fact, a diurnal ship-to-ship visitation between London-bridge and Woolwich, from August to November inclusive, and the *Dread-*

nought authorities were acknowledged to have done their work exceedingly well. It may naturally be asked why this duty was undertaken and the cost borne by a charitable institution, and not by the local authorities, or the State; but this is not now to the point. It is sufficient to know that the necessity for sanitary supervision was felt and acknowledged. Some valuable information on this subject was collected by Mr. Johnson Smith (then chief inspector) during the visitation, and both Dr. Letheby and Mr. Harry Leach have made this matter the subject of special reports. Meanwhile we appear to be on the eve of another epidemic of cholera, and the Thames, in all that relates to the health of its floating population, is in as helpless and hopeless a state as ever, although it is one main road by which cholera may come to us from the continent of Europe. The Thames Conservators and the Board of Trade are more or less responsible for this state of things. We may be sure that no plan for the prevention of disease in the United Kingdom is complete that fails to take cognisance of that vast floating population upon the existence of which the commercial prosperity of Great Britain so vitally depends.

MEDICAL CHARGES.

WE confess to always reading with great interest the fate of actions to recover medical charges in county courts. It is a lamentable thing that such actions should ever be necessary. Medical charges should be generously judged by the patient, and gratefully paid. To take them into a cold court, away from all the actual details of the attendance and trouble they represent, is presumably a disadvantage to the practitioner. The satisfaction, however, is the greater when the judge confirms the reasonableness of the account, and when the charges are pronounced by medical brethren, even by one subpœnaed by the defendant, to be just. Such is the case of Fielding *v.* Rowe, detailed in the *Alfreton Journal* of July 21st, before G. Russell, Esq. This was a case in which it was vainly attempted to question the reasonableness of Mr. Fielding's charges, and to make out that certain parts of the bill for servants and others had been paid. The worst feature of the case was an attempt, on the part of the defendant's attorney, to fasten a charge of intimidation on the practitioner because he expressed a considerate reluctance to take the case into court, unwilling, for the defendant's sake, to expose the particulars. The judge very severely reflected on this stretch of the solicitor's privilege, and it may reasonably be expected that in future the privilege will not be strained in that court. A verdict for the full amount was given, the judge expressing his perfect concurrence. Such a result should induce patients, whom gratitude does not impel, to pay their doctor's bill with a good grace.

HEALTH OF FEMALE TEACHERS.

THE Rev. Claude Herbert Parez, inspector of schools, opportunely directs attention in his last report to the question of the health of young female teachers. Medical men, too, often see examples of the injurious effect of the profession of teaching, especially on females. And in commencing the more active and extensive educational work to which we are committing ourselves, it is both wise and right to take thought for the health of the teachers. Mr. Parez thinks calisthenics ought to be more attended to, and we agree with him. But there are two points in the hygiene of schools which are even more urgent and primary than this—first, the securing of fresh air in the schools, and, secondly, the proper limitation of the work of the younger teachers, whether direct teaching work or the work of preparing for examinations, which often breaks the health of young girls. If work could be suited to age and strength, and could be done as it were in open air, we should not see the pallor and the weakness and the actual disease which are too often to be seen in female teachers. Calisthenics, with a proper amount of school duty, and an adequate supply of fresh air in schools, would make teaching a not unhealthy employment.

THE VENTILATION OF SEWERS.

THE general ventilation of sewers is no new proposal, but has been recognised as a necessity by many eminent engineers. The whole of the main sewers devised for Lancashire by Mr. Rawlinson, and executed under his supervision during the cotton famine, are permanently ventilated by openings at regular distances in the roadway. After inquiries made at West Derby, Bootle, Toxteth-park, and Wavertree, Mr. Rawlinson only consented to recommend the sanction of the Home Secretary to the loans proposed for new sewers on condition that the existing dumb shafts were uncovered and continuously ventilated, and that all the new sewers should be permanently and freely ventilated at the surface of the roadway. The same provision has also been insisted upon for the main sewers now in course of execution at Brighton. That such ventilation is not universal is chiefly due to the prejudices of town councillors and local boards, who obstinately resist the engineers' proposals for ventilation. It may therefore be stated that the opinion of the late Mr. Newlands, of Liverpool, against general ventilation was quite exceptional, and that the mass of professional evidence is entirely in its favour.

GREENWICH HOSPITAL.

THE meeting held at Greenwich on the 27th ult., to which brief allusion was made last week, did nothing whatever in the way of suggesting any plan of occupation. Indeed, it did not appear to be their cue to do so. A letter of the most approved stereotyped pattern was received from Mr. Gladstone, and we can fully believe that pressure of work, as well as other reasons, prevented the presence of the Prime Minister on this occasion. Three civil Lords of the Admiralty have failed to deal with this important question, and, with the exception of the infirmary, now usefully occupied by the Seamen's Hospital Society, this palatial pile of buildings is, and as far as we can see is likely to remain, a monument in the eyes of foreigners of the inscrutable wisdom of British legislation.

THE SUPPLY OF DRUGS TO WORKHOUSES AND POOR-LAW DISPENSARIES.

IT is extremely desirable that the medical officers of workhouses and Poor-law dispensaries should exercise discretion and true economy in their ordering of drugs. It is a great advance upon the old and inefficient system that they have now the power of ordering every preparation that is really necessary for their patients; and it would be most unfortunate if the public should be alarmed by the proof of any extravagance. There was, perhaps, some reason for the remarks of the chairman of the Islington guardians, who, in complaining of the order for medicines, said that two pints of tincture of nux vomica was enough to poison an astounding number of persons. Nevertheless, we have no sympathy with the reasons for which he deprecated the use of tinctures—such as henbane, paregoric, &c.,—that they encouraged habits of intemperance. It may or may not be true that many ladies are in the habit of taking them because of the spirit they contain; but it seems to us utterly absurd to suppose that the observation could apply to the inmates of a workhouse.

We cannot but think that the Poor-law Board would render a real service to the public if they would authorise their medical inspector to draw up a fitting Pharmacopœia for the use of the medical officers of workhouses and dispensaries, something after the example of the Irish Poor-law Board; and if there were but one purchaser for the whole metropolis, great economy would certainly result.

AN IMPERIAL INSPECTION.

THE Emperor and Empress of Brazil, with that indefatigable spirit which has led them to see everything, recently paid a visit to the Royal Albert Asylum, at Lancaster, for idiots and imbeciles of the northern counties. The asylum will accommodate 500 inmates, exclusive of staff. It is now in full operation, and contains 60 patients. The building stands on an estate of 67 acres of land, with a good view of Morcombe Bay and the Lake Mountains, and is intended for the reception of patients from the seven northern counties, who are eligible for free admission; patients from all other parts being admitted on payment. The Emperor made a very careful inspection of the institution, and evinced an interest in every detail relating to the work of idiot training that was creditable alike to his intelligence and to his humanity. On leaving, the Imperial party entered their names in the Visitors' Book, with the following remark:—"C'est un charitable et superbe établissement, que Dieu benira."

THE SYME TESTIMONIAL.

THE handsome sum of £2295 10s. has been collected for the foundation of a memorial of the late Mr. Syme. This amount includes a liberal donation of £305 by Mr. Syme's son, and enables the Committee of the Memorial Fund to present a marble bust of Mr. Syme, by Mr. Brodie, to the University of Edinburgh and to the Royal Infirmary, and to hand over a sum of £2000 to the former institution, which supplements the amount by a gift of £500, for the foundation of a Syme Surgical Fellowship, tenable for two years, and which will be awarded by the Senatus to a Bachelor of Medicine of not more than three years' standing who shall present the best thesis on a surgical subject; the first competition to take place in 1874. We hail the foundation of the Fellowship as doing justice to the merits and memory of a great and illustrious British surgeon, and as tending to encourage the study of the science which he so much advanced.

ARRANGEMENTS FOR KEEPING OUT CHOLERA.

WITH the view of giving effect to the recent Order in Council, directing certain precautionary measures to be taken for the purpose of preventing the introduction of cholera into this country, Mr. J. N. Radcliffe, one of the inspectors of the Medical Department of the Privy Council, has been visiting some of the north-eastern seaports, and is now, according to the *Liverpool Daily Post*, about to visit Liverpool and Birkenhead in order "to insure that due provisions are made for dealing with cholera, if it should appear among emigrants who have been allowed to land at Hull and have then gone on to Liverpool."

SMALL-POX AND VACCINATION AT THE CAPE.

WE understand that the Government of the Cape of Good Hope has been urging upon the colonial medical men, and the public, the necessity of seeing that everyone is properly vaccinated. It has also addressed a circular to all the magistrates and various municipal authorities on the subject. The result has been that several thousands have been vaccinated or revaccinated. The immediate cause of this impetus to vaccination was, we believe, the appearance of small-pox on board one of the mail steamers going to the colony. It would seem that there are anti-vaccinationists at the Cape, for some of the colonists appear to have a dislike to the performance of the operation.

THE EDINBURGH UNIVERSITY CLUB.

THE autumn meeting of this Club was held on Tuesday last, at the St. James's Hall restaurant, under the presidency of Dr. Lyon Playfair. The chairman took occasion to allude to what had been done in the House of Commons during the session in matters relating to public health, and considered the passing of the Local Government Board Bill as an important step in the right direction. The meeting was a small one, but the dinner good and well served, and songs rather than speeches were the order of the evening.

SANDOWN.

WE have received some very satisfactory particulars showing the excellent sanitary condition of Sandown, as judged by its annual death-rate for the last six years, which is only 13 per 1000. We have on former occasions commended the place for its salubrity, and we are glad to find that it still possesses every claim to the confidence of the public as a health-resort. Preventive medicine is clearly well attended to in Sandown, and it is only just that we should thus call attention to its special freedom from disease, at a time when epidemic mischief is abroad and the public are anxious for reliable data to guide them in their selection of holiday abodes.

WORKHOUSE MILK.

AN inquiry into the food of the London pauper has been set on foot by Government. We propose to return to the subject, and in the meantime content ourselves with just referring to the investigation of the milk in workhouses. There are metropolitan unions to which milk-purveyors supply a fluid prepared from milk by skimming it perfectly, and then mixing it with an equal volume of water; and this fluid is supplied under a contract for "the best unskimmed milk."

HEALTH OF PARIS.

THE health of Paris continues to be good, notwithstanding whatever might have been expected to the contrary. The mortality during the week ending July 28th amounts to only 778, being 81 less than that of the preceding week, which numbered 859. Diarrhœa is prevalent, but there are not the slightest traces of cholera; indeed, no single case has been recorded. The municipality are taking every necessary measure of precaution for maintaining the present sanitary condition of the city.

MR. APPLEGARTH, one of the Commissioners who sat on the Commission upon the Contagious Diseases Act question, is reported to have said at a public meeting that he found in his investigations many cases where the police exceeded their duty, where respectable women had been stopped by them, and had been insulted by being compelled to undergo examination. Why, then, did Mr. Applegarth sign the report which gave the lie direct to such charges, and completely exonerated the police? We are utterly unable to comprehend Mr. Applegarth, or the odd way in which his pen and his tongue appear to contradict one another.

MR. STANSFELD'S Local Government Board Bill was read a third time and passed in the House of Commons on Tuesday.

ACCORDING to the *Retford and Worksop News*, the Gainsburgh Local Board of Health has elected Dr. Mackinder medical officer of health, at a salary of ten guineas a year. We find it very hard indeed to credit the following statement:—"The worthy doctor offered to take the post as an honorary appointment, but the Board determined to retain the salary." We can only say that this is wonderful, if true.

THE Plymouth Guardians have postponed the election of district medical officer, there being only one candidate, and an advertisement asking candidates to come forward is to be inserted in the local and other papers. The motion was opposed by Mr. McCarthy, who said that no member of the Board could be surprised at their not having more candidates, for had they not increased the work and diminished the pay?

WE understand that one of the inspectors of the Medical Department of the Privy Council has been directed to make inquiry into the circumstances under which the so-called "sizing system," and especially the use of china clay, is carried on, with a view to determine the influence which it exerts upon the health of the weavers.

THE cholera, which, as we some time since stated, had broken out in Madagascar, appears from the latest advices to be spreading, not only in the island, but on the neighbouring mainland. At the estuary of the Zambesi, a locality which had been free from the epidemic, cholera was, at the end of April it is reported, raging as an epidemic.

LAST Monday was Capping Day at Edinburgh, and was more than usually well attended to witness the conferring of honorary degrees upon several *savans* who are taking part in the annual meeting of the British Association this year. The degree of M.D. was awarded to twenty-one gentlemen.

WE hear that a very fatal disease, supposed by some to be plague, has broken out in Persia, at a place close to the Turkish territory. We also understand that the Turkish authorities are taking steps to prevent communication between the place in question and the territory of the Porte.

AT the last meeting of the Academy of Sciences, Paris, the seat left vacant by the recent death of the regretted and eminent Professor Longet was given by election to M. Lacage Duthiers, Professor of Natural History at the museum.

THE French Minister of Public Education is now seriously occupied with a scheme for reducing considerably the amount of money which students of medicine at present pay down for registration fees for the diploma of Doctor of Medicine, &c.

FRANCES ROGERS, the Manchester baby-farmer, has been sentenced to penal servitude for twenty years; the charge against her being that of neglecting and ill-treating several infant children with intent to murder them.

IT is proposed to found a Scott Hall for academic purposes in the University of Edinburgh, as a permanent record of "the centenary."

THE award of a Civil Service pension of £100 to Dr. Gavin Milroy, which we announced some time since would be granted, is one which we are very glad to see. It is well deserved.

THE Senatus of the University of Edinburgh have informed Miss Jex Blake that they are unable, on legal grounds, to comply with the proposals contained in her memorial of June 26th for enabling lady students to complete their medical education.

MR. BERKELEY HILL, Mr. Christopher Heath, and Mr. Marcus Beck, have been appointed teachers of Practical Surgery in University College Hospital.

THE Société de Secours aux Blessés of France has forwarded the Cross and Diploma of the Society to Sir William Fergusson, Mr. Paget, and Mr. Ernest Hart.

THE Sharpey Scholarship recently instituted at University College for the encouragement of the study of Biological Science has been awarded to Mr. E. A. Schäfer.

THE NEW ORDER IN COUNCIL.

THIS new order, after pointing out the powers conferred upon the Privy Council by the Act passed in the sixth year of George IV., cap. 78, and the Sanitary Act of 1866, to make special provision against the introduction of epidemic disease into the country, declares:—

Whereas cholera is now prevailing in certain parts of continental Europe with which this country has communication, and it is requisite to take precautions, as far as practicable, against the introduction of that disease into this country:

Now, therefore, the Lords of her Majesty's Most Honourable Privy Council, by virtue of the powers in this behalf by the recited enactments or otherwise in them vested, do order, and it is hereby ordered as follows:—

1. In this order the term "ship" includes vessel or boat. The term "master" includes the officer or person for the time being in charge or command of a ship. The term "cholera" includes choleraic diarrhœa. The term "nuisance authority" has the same meaning as in the Sanitary Act, 1866.

2. It shall be lawful for any nuisance authority having reason to believe that any ship arriving in its district comes from a place infected with cholera, to visit and examine such ship before it enters any port, or lands any person or thing in the district, for the purpose of ascertaining whether such ship comes within the operation of this order.

3. The master of every ship within the district of a nuisance authority, having on board any person affected with cholera, or the body of any person dead of cholera, or anything infected with or that has been exposed to the infection of cholera, shall, as long as the ship is within such district, moor, anchor, or place her in such position as from time to time the nuisance authority directs.

4. No person shall land from any such ship until the examination hereinafter mentioned has been made.

5. The nuisance authority shall, immediately on the arrival of such a ship, cause all persons on board of the same to be examined by a legally qualified medical practitioner, and shall permit all persons who shall not be certified by him to be suffering from cholera to land immediately.

6. All persons certified by the examiner to be suffering from cholera shall be dealt with under any rules that may have been made by the nuisance authority under the 29th section of the Sanitary Act, 1866; or where no such rules shall have been made, shall be removed, if their condition admits of it, to some hospital or place to be designated for such purpose by the nuisance authority; and no person so removed shall quit such hospital or place until some physician or surgeon shall have certified that such person is free from the said disease.

7. In the event of any death from cholera taking place on board of such vessel, the body shall be taken out to sea, and committed to the deep, properly loaded, to prevent its rising.

8. The clothing and bedding of all persons who shall have died, or had an attack of cholera, on board such vessel, shall be disinfected, or (if necessary) destroyed, under the direction of the nuisance authority.

9. The ship, and any articles therein which may be infected with cholera, shall be disinfected by the nuisance authority.

10. Every person obstructing the nuisance authority in carrying this order into effect, or otherwise offending against this order, shall be liable, on summary conviction, to a penalty not exceeding £20.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

THE annual business meeting of this Association was held on Wednesday week, at the Freemasons' Hall, Great Queen-street, and was followed by the festival dinner. Dr. Rogers presided, and the meeting was attended by Dr. Thomas, Dr. Frost, Dr. Jones (of Sydenham), Dr. Lord (of Hampstead), Mr. Milward (of Cardiff), Dr. Stallard, Dr. Anstie, Mr. Benson Baker, Dr. Dudfield, and, afterwards at the dinner, by Mr. Corrance, M.P., and other gentlemen.

In opening the proceedings of the present meeting, Dr. Rogers stated that in point of numbers the Association stood extremely well, and the work had hitherto been carried on without much expense, the expenditure of money being saved by the voluntary labours of those who had the cause of the Association at heart. There was still work to be done, work which would need all their energy, and the assistance of members would be necessary to carry on the programme. Mr. Corrance, whose interest in this work had never flagged, had given notice in the House of Commons of his intention to introduce a Bill relative to the treatment of the sick poor, and when the subject came before the community it would receive, no doubt, the support of all who saw how the interests of society at large were bound up with the question of the proper treatment of the sick poor. Dr. Rogers then, referring to the re-election that day of the president, a position he had held for many years, expressed his willingness to make way for anyone else whom the Association might desire to elect, and suggested that Mr. Corrance, M.P., should be elected.

A short discussion ensued upon the subject of the election, and the meeting agreed that the most advisable course was to elect a member of the profession, and one who was not mixed up in party politics. Dr. Rogers was again nominated and re-elected.

Addresses were then delivered on the subjects of the condition of the Poor Laws in respect of the establishment of public dispensaries, and on the Vaccination Laws, and the alterations made in the Privy Council regulations at the instance of the Association.

The usual complimentary votes of thanks having been given, the meeting closed.

At the dinner Dr. Rogers presided, and the loyal and patriotic toasts having been given, Dr. Dixon responded for the volunteers.

The Chairman then proposed the "House of Commons," and in doing so said to a certain extent the Association would be drinking to their fellow members, seeing that some fifty or sixty members of the House of Commons were members of the Association. This fact would show, more perhaps than anything else, that the objects of the Association had obtained the sympathy of members of the legislature. As an explanation of why they had not attended that night, he showed a bundle of letters from members, one and all expressing their regret at absence, and most of them giving as a reason that their duties in the House had quite knocked them up. Amongst the members who had so written were Sir Massey Lopes, Mr. W. H. Smith, Mr. M'Cullagh Torrens, Mr. Kennaway, Mr. C. S. Read, Dr. Lush, Mr. Barclay, Mr. Charles Reed, and many other friends. Dr. Rogers described the House of Commons as now being all "sixes and sevens," and the members like sheep without a shepherd, and he heartily wished them a very lengthened tour in the country to recover their energies. (Laughter.) He then spoke in eulogistic terms of the services of Mr. Corrance to the cause of this Association, and said the greater value was to be placed upon those services as Mr. Corrance had run counter to the views of his constituents, who were farmers, and did not see the necessity for an enlarged system of poor relief for the benefit of the community at large; and it therefore behoved the medical profession to exert their wide influence—and it was wider than they themselves could conceive of—to ensure the return at the next election of a man who had the moral courage to do as Mr. Corrance had done.

Mr. Corrance, M.P., who was received with loud cheers, acknowledged the toast, and said the House of Commons had had much work and talk, and seeing that it had outlasted the lawyers in the Tichborne case, there was no wonder at its being exhausted. He then went into detail as to the Bill he proposed to bring in the next session; and having to refer to the Poor-law Board in the course of his remarks, he declared that that Board was now simply obstructive, and amid loud cheers said that the permanent elements in that Board were the worst features of it. He dealt with the features of out-door relief, and expressed the hope of being able to educate the farmers up to the objectionable features of that relief. He also contended that it was of the utmost importance that the pay and status of the medical officers under the Poor Law should be raised, and declared that he would not rest satisfied until the objects he aimed at had been attained.

The Chairman then proposed "Prosperity to the Association," and showed how it had increased over the few years it had existed, until now it had reached 1000 members. He gave a detailed history of the work done and what it intended to do, and, having shown that the Poor-law medical officers had obtained some benefits through its means, said the public interests only could be served by the adoption of the programme of the Association. He dealt in a sweeping denunciation of the Poor-law system as carried on under the permanent staff of the Poor-law Board, and said that the burden of the present system would be well understood when it was seen that it cost the country seven and a half millions sterling annually, a great deal of which went to provide for a staff appointed through favouritism and family interests.

The toast was drunk, and responded to by Mr. Benson Baker.

The Chairman then proposed the "Press," which was responded to by Dr. Anstie and Dr. Stallard.

The concluding toast of "The Chairman" was proposed by Mr. Milward of Cardiff, and after its acknowledgment the party broke up.

Correspondence.

"Audi alteram partem."

LIVERPOOL MAIN-SEWER VENTILATION.

To the Editor of THE LANCET.

SIR,—"Let every cobbler stick to his last" is a good old proverb. Drs. Parkes and Sanderson, for whose medical reputation I have the highest respect, ought to have confined their report on the sanitary state of Liverpool to the medical aspects of the question, and not have ventured opinions and recommendations on purely engineering questions of construction. Main sewers, their design, construction, gradients, and modes of ventilation are purely questions of engineering. Tide-locked and land-flood-locked sewers are very common both at seaport and at inland towns. Costly tall shafts for sewer ventilation are not necessary. Numerous side-entrances will also be very costly, and if the sewers are not ventilated, as in London and other towns, these side entrances will be useless for purposes of safety and sewer-air purity. The explanation by Drs. Parkes and Sanderson in THE LANCET of the 29th ult., as to their proposed modes of improving the state of the Liverpool main sewers, "mends their case worse."

There are no perceptibly offensive discharges from sewers which are fully ventilated. If at any point there is an offensive discharge this is because this sewer is not suffi-

ciently ventilated. If one ventilator is offensive, open a second; if still there is perceptible offence, open a third; and so on, until there is the utmost dispersion and dilution of the sewer gases, which, in the open air, do a minimum of injury; remembering that towns must be sewered, and that if sewage is to do the least injury, the sewers must be permanently, abundantly, and unceasingly ventilated, not by tall shafts, because they are costly, but by the simple London plan.—Yours, very obediently,

ROBERT RAWLINSON.

Local Government Act Office, 8, Richmond-terrace, Whitehall, July 31st, 1871.

THE COLLEGE OF SURGEONS' EXAMINATION FOR DIPLOMA.

To the Editor of THE LANCET.

SIR,—Would it surprise you to hear that the manner in which the examinations at the College are carried out is, in language not too strong, a disgrace to the board of management? The College shows great lack of respect and consideration towards the students, many of whom, I venture to think, have the feelings and aspirations of gentlemen; and hence it requires no logic on my part to prove that they should be treated as such. It seems to me full time to make a stir, and, if possible, effect a change for the better. Permit me to give you an epitome of what occurred to myself by way of making things intelligible.

At 10 on the morning of July 21st I was requested to be within the precincts of the College, for the purpose of paying the small fee of £16 15*s*. At 10 A.M. I was there, when I found upwards of 100 students on a like errand. We were kept waiting three-quarters of an hour, when a little boy at one of the doors, in a very feeble and almost inaudible voice, called out the names of the gentlemen in succession, according to some order of their own, to go in to see the Secretary, and deposit the cash. Simultaneously with the first cry of the boy all the men made a rush for this door, and the crush that ensued reminded one forcibly of the scenes which are seen at the pits and galleries of theatres. Each man endeavoured to get as near the door as possible, in order to hear his name called, or lose his turn. Naturally at this period of the year (at least on that particular day) the temperature of each man in such a closely-packed body was something alarming. In this state I was kept waiting fully two hours, while others after me had still further to wait. I then barely found time to get lunch and quench my parching thirst. At 12 45 we were to be ready for the written paper. Is it then a matter of wonder that men are far from being in a fit state for doing much mental work, and write a good paper after going through so much physical exertion?

If I may be allowed to offer a suggestion by way of remedying the evil, one that appears very simple and practicable to me—Why not allow the men to pay their fee during the days (having a certain limit) previous, and thus avoid all crowding?

Mr. Editor, a legion of students will be grateful to you if you will hear their cry, and assist them in this matter. The importance of the subject will amply apologise for taking up so much space in your valuable journal.

I remain, Sir, your obedient servant,

A SUCCESSFUL CANDIDATE.

THE PROPAGATION OF SMALL-POX BY THE SEWERS.

To the Editor of THE LANCET.

SIR,—Will you allow me to call attention to the probability of small-pox being propagated by means of sewage and sewer gases. Dr. Budd, in his treatise on Small-pox in Sheep, showed that the infection was propagated in the direction of the valleys. A flock separated only a few hundred yards from an infected flock by a small hill escaped, whilst the disease spread to all the flocks for miles down a valley. It is remarkable that the death-rate from small-pox in the valley of the Fleet, at the very head of which stands the Hampstead Small-pox Hospital, is much higher than the surrounding districts. The annual rate from small-pox outside the Fleet valley is—for Regent's-park, 1·8 per 1000 of the population; Tottenham-court-road, 1·4 per 1000; for Clerkenwell, 1·5 per 1000; for Marylebone, 1·0 per 1000; whilst in the Fleet valley, commencing at Kentish-town, the annual death-rate from small-pox is 2·2 per 1000; below this, in Somers-town, it is 4·6; and again below this, in Gray's-inn-lane, 2·6 per 1000. These figures may not prove the point, but they appear to me deserving of investigation. Would it not be desirable to obtain from the small-pox hospitals the localities from which the cases have been sent, to see whether a larger proportion has come from the Fleet valley and lines of sewerage or not? I would observe that the pressure of the sewer gases is so great in this neighbourhood as to force its way through gulleys, gratings, and even through the traps of waterclosets. We have had an increased number of typhoid fever cases in Haverstock-hill and Hampstead in consequence.

I remain, Sir, yours, &c.,

Haverstock-hill, July 25, 1871. STEPHEN S. ALFORD.

Obituary.

CHARLES F. A. COURTNEY,

SURGEON R.N., LATE OF H.M.S. "ORONTES."

THE death of this officer occurred at Haslar, on July 16th, from blood-poisoning in dressing a wound, which led to erysipelas and phlebitis. He entered the navy in July, 1848, and served as an assistant-surgeon in the West Indies, Mediterranean, Baltic, and Black Seas, for which he was promoted to the rank of surgeon in May, 1856, and was awarded a war medal. He was soon afterwards ordered to China, and on his arrival there took medical charge of the troops quartered in the heart of the city of Canton; and when the possession of the city was given up he became surgeon of H.M.S. *Highflyer*, in which he was present at the repulse from the Peiho river, in 1859, and in the following year at the taking of the Taku forts, which preceded the march to Pekin. For these services he received the China war medal. Returning to England in 1861, he was appointed to H.M.S. *Defence*, an iron-clad of the Channel squadron, and after her commission was over, to the *Donegal* and *Resistance*, coast-guard training-ships. He was surgeon to H.M.S. *Orontes* when he met the misfortune that caused his untimely and lamented death. In his service career he always proved himself an energetic officer, but from scarcity of employment he spent three years on half-pay, which involves loss of seniority, and thus after twenty-three years in the navy, he died wanting a few weeks of full-pay service for the rank of staff surgeon. He was remarkable for indefatigable and earnest attention to his duties, for close application to the interests of the service, and for sincerity in all that regards the honour and welfare of his profession. His urbanity secured to him the affectionate respect of all his shipmates, and by his steadiness of action and close adherence to whatever post he was sent to fill, he obtained the high opinion of his superior officers. There is reason to believe that, by thoughtful attention to his duties while employed in training-ships, Mr. Courtney was able to offer, through the chief of his department, many valuable considerations concerning that all-important subject, the recruiting of boys for the navy. He leaves a widow and three young children to deplore an irreparable loss.

J. VALE ASBURY, M.R.C.S.

A FINE specimen of the general practitioner of the older day died at Enfield, Middlesex, on June 21st, in Mr. Jacob Vale Asbury. The deceased gentleman was in his eightieth year. He studied at Middlesex Hospital, and acted as demonstrator for seven years to Mr. Joshua Brooke, and next as assistant to Mr. Dewint, of Stone, Staffordshire, where his opportunities in the mining districts were of use to him as an operating surgeon. In 1818 he settled in practice at Enfield; married in 1820 the third daughter of Charles Jacomb, Esq., of Guildford-street, Russell-square; was shortly thereafter appointed medical officer to the parish;

and rose steadily in popular and professional esteem as a practitioner. His skill, as a surgeon in particular, received many testimonials, of which the following may serve as an example:—"Dono dedit Gulielmus Powell Jacobo Vale Asbury, propter artem ejus eximiam qua in se, quamvis in casu inexpugnabili, operationem perfecit." In 1833 he published his well-known treatise on epidemic cholera; and about the same time he invented two surgical instruments—one for the puncture of the tympanum, the other for the extraction of fish-hooks. Towards the close of 1852, in consequence of the prevalence of railway accidents, he invented an apparatus to lessen the force of collision between trains or carriages in motion. This machinery was to be applied to the bed of each carriage, and also introduced into a luggage van or brake which he named "Asbury's Diascstikon."

Mr. Asbury took the diploma of the Royal College of Surgeons of England in 1816 and the Licentiateship of the Apothecaries' Society in the same year. He lived on terms of intimacy with Charles Lamb, Thomas Hood, and other well-known men of letters; besides members of his own profession like Abernethy, Turner, and Bennett. His circle of acquaintance widened with every year of his long life; and few men have gone down to the grave amid more general or poignant regrets.

HERBERT CHALMERS MILES,
ROYAL ARTILLERY.

WE regret to announce the death of Mr. H. Chalmers Miles, of the 6th Brigade, Royal Artillery, which occurred at Colaba, on the 16th of June last, from abscess of the liver. Surgeon Miles entered the army in 1854, and served on the medical staff during the Crimean war in 1855, and the Indian campaign of 1857-58. He was present at the attack on Nimbkeira, where he was wounded. During the defence of the fortified square of Neemuch, in November, 1857, although suffering from a gunshot wound, Mr. Miles was in medical charge of the detachment 83rd Regiment, and wing of 12th Native Infantry; was present during the field operations against Awah, and subsequent destruction of adjacent strongholds; served in medical charge of the 83rd Regiment prior to, and was present during, the siege operations against Kotah and its capture by assault. The deceased officer matriculated at the University of London, and, after studying at St. Bartholomew's, passed the Royal College of Surgeons of London. Surgeon Miles was deservedly a favourite with his brother officers and the men of his corps. He was a very well-informed man, and had the faculty of writing easily and well, so that his productions were always fresh and pleasant to read.

DR. ROBERT DUNDAS.

ON June 25th the medical profession lost a distinguished member, and his numerous friends a respected and beloved companion, by the death of Dr. Robert Dundas. Born in Ireland at the latter end of the last century, he entered the medical service of the army at an early age, served in the Peninsula, and was present at the siege of New Orleans in 1815. He subsequently settled at Bahia, in Brazil, where he was entrusted with the medical superintendence of the British Hospital. This post he filled for twenty-three years with great credit to himself and benefit to others; rapidly attaining great professional eminence at Bahia and in Brazil generally. His health giving way, he resigned his hospital appointment and practice, and returned to Europe with ample means, the product of his skill and industry. He was, however, much too active-minded to accept the leisure so well earned by twenty-eight years' service in tropical climates, and, as soon as his health began to recover, he settled in practice in Liverpool, the residence of many of his old Bahia friends. There he was appointed physician to the Northern Hospital, and again did good work for several years. In 1852 he published, under the title of Sketches of Brazil, a valuable contribution to medical literature. In this work he advocated strenuously the doctrine that intermittent fever is not necessarily the result of so-called malaria, but may be generated in the human economy by electrical, thermometric, and morbid hygienic conditions, quite apart from the action of marsh miasmata. He also brought forward a considerable mass of evidence to prove the possibility of arresting the course of continued fever by quinine. This work was well received by the medical public, and the edition was rapidly exhausted; but it was never reprinted. The period for calm and repose had arrived, and Dr. Dundas, partly influenced by the ties of friendship, gave up his Liverpool position and settled in London, in Gloucester-place, Hyde-park, in the year 1854. Here, in the bosom of his family and surrounded by many attached and devoted friends, old and new, he spent the last years of an eventful life. He died of exhaustion, following a severe and continued attack of sciatica, in his eightieth year. He was an upright, conscientious, intellectual man, of firm will and unflinching resolve. He combined with a certain sternness of character so much warmth of affection and sympathy for those whom he esteemed and loved, that he exercised over them great and unusual influence. He retained also, until the last, a most extraordinary power of attaching to him those whom he honoured with his regard.

JOHN WHITE, M.R.C.S., L.S.A.

WE regret to have to announce the death, on July 28th, after a short illness, of Mr. John White, at his residence, Storey's-gate, Westminster, at the age of seventy-three years. Mr. White became a licentiate of the Society of Apothecaries in 1819, and a member of the Royal College of Surgeons of England in 1821. His practice in Westminster extended over a period of more than forty years. Added to considerable professional knowledge, he had also acquired for himself a name for kindly sympathy and courteous urbanity amongst all classes of his patients, by many of whom he was warmly esteemed and respected as a sincere friend, and in whose memory he will long hold a position it will be hard, if not impossible, to efface.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the required examination for the diploma, were duly admitted Members of the College at meetings of the Court of Examiners on the 25th, 26th, 27th, and 28th of July:—

Adcock, Hugh, L.R.C.P. Edin., Hunstanton, Norfolk.
Allen, Marcus Henry, Brighton.
Ayles, Thomas Vaughan, L.S.A., Southsea.
Barrow, Frank E., Woolwich.
Barrow, Henry J. W., Woolwich.
Benham, William T., M.B. Aberdeen, Bristol.
Bishop, Edward S., Manchester.
Bland, William Clark, L.S.A., Notting-hill.
Bodman, Francis H., M.B. Aberdeen, Devizes.
Brabant, Thomas H., Chippenham, Wilts.
Briggs, George C., L.S.A., Horncastle.
Brookfield, John Storrs, M.B. & M.C. Edin., Halifax, Nova Scotia.
Bryan, Francis Charles, L.S.A. Northampton.
Cauton, Frederick, Great Marlborough-street.
Cartwright, John Peploe, Oswestry, Salop.
Chambers, John Louis, L.S.A., Hackney-road.
Cheyne, George E., Thornton-heath, Croydon.
Clarke, Frederick H., L.R.C.P. Edin., Devonport.
Clarke, John C., Coleraine, Ireland.
Clark, Henry Edward, L.R.C.P. Edin., Glasgow.
Conolly, Stephen F., Kilburn.
Coloman, William F., M.D. Queen's Univ. Canada, Toronto.
Curling, William, L.R.C.P. Lond., Ramsgate.
Davies, David A., Swansea.
Domville, Edward James, Exeter, Devon.
Edginton, Robert W., Stow-on-the-Wold.
Edis, John Butler, Peterborough.
Elkington, Ernest A., Birmingham.
Fendick, Thomas R., Mylne-street.
Flint, Samuel Weekes, L.R.C.P. Edin., Trinidad, West Indies.
Garton, William, St. Helens, Lancashire.
Gibson, Charles Henry, L.R.C.P. & S. Edin., Dublin.
Grayson, Francis D., Henley-on-Thames.
Hadley, Clement, Birmingham.
Hannay, Robert S., Belfast.
Hazel, William Francis, L.S.A., Oakley-square.
Heygate, William Harris, L.S.A., West Haddon, Northampton.
Hill, Charles H., Teddington.
Hinchcliff, Edwin, M.D. Edin., Victoria, Australia.
Holden, Alfred F., Cape of Good Hope.
Hopkins, Frederick F., Henley-in-Arden.
Hughes, Evan T., L.S.A., Anglesea.
Hughes, Hugh R. G., Bangor, North Wales.
Hugman, William, Guildford-street.
Hutson, Charles, Barbadoes, West Indies.
Johnson, Charles Hargitt, L.S.A., Hull Infirmary.

Kiddle, John Nelson, Adelaide-road.
King, William Louis, Great Malvern.
Lamniman, Cleland, Commercial-road East.
Latimer, Henry Arthur, L.S.A., Plymouth.
Ledyard, William E., M.B. Toronto, Toronto.
Lucas, Thomas Pennington, L.S.A., Leominster.
Lyons, Isidor Isaac, L.R.C.P. Edin., Alexandra-road.
Marley, William Lane, Padstow, Cornwall.
Mayne, Thomas, Stonehouse, Devon.
M'Donald, Wallis, L.R.C.P. Edin., Teignmouth, Devon.
M'Donnell, Michael S., Glasgow.
Meredith, William Appleton, Wimpole-street.
Monks, Frederick Aubin, L.S.A., Hoxton.
Morgan, Edward Rice, Swansea.
Morison, Bentham P., L.S.A., Pembroke.
Newman, Ashwin C., L.S.A., Cheltenham.
Noad, Henry Carden, Hereford-road, Paddington.
Norman, Joseph C., Colchester.
Payne, George S., Hartfield, Sussex.
Phillips, George Arthur, L.S.A., Whitwell, Herts.
Pratt, Charles W., Plymouth.
Pye-Smith, R. John, Hackney.
Ransom, Frederick P. F., L.R.C.P., Elmham, Norfolk.
Read, Charles, Guildford-place, Russell-square.
Reed, James, L.S.A., Stoke, Devonport.
Rees, Albert Barnes, Swansea.
Robertson, Hugh, M.B. Toronto, Toronto.
Rogers, Charles C., Cork-street.
Saunders, Arthur R., Haverfordwest.
Scully, John, Wimpole-street.
Slack, George Frederick, Montreal, Canada.
Smith, Gilbart, Blackrock, Co. Dublin.
Southee, Henry E., Ely, Cambridgeshire.
Spencer, Francis H., L.S.A., Chippenham, Wilts.
Thompson, Joseph, L.R.C.P. Edin., Kirkby Stephen.
Thrupp, James Godrey, Marylebone-road.
Thurland, Francis E., Thursterton, Cheshire.
Walter, Clement C., Dover.
Warren, George M., M.D. Toronto, Toronto.
Watson, Walter George, L.S.A., Talbot-road.
Watson, William George, L.S.A., Sydney, Australia.
Willcocks, Isaac, L.S.A., West Looe, Cornwall.
Williams, Edward, L.S.A., Aberbank, Llandyssul.
Williams, Richard, L.R.C.P. Edin., Farnham, Surrey.
Wilmot, Robert E., Chandos-street.
Wybrants, Robert Bath, Shepton Mallett.
Younger, Edward G., Blackheath-hill, Kent.

Of the 114 candidates admitted to examination, 20 failed to satisfy the Court, and were referred for a period of six months' further professional study.

The following gentlemen passed the required examinations and were admitted Licentiates in Midwifery at a meeting of the Board on July 31st:—

Ayers, Benjamin, L.R.C.P. Edin., Fulham-road.
Mondelet, W. H., M.D. M'Gill Coll. Montreal, Emigration Service.
Smith, Eldred Noble, M.R.C.S., Worth, near Crawley.
Willis, Julian, M.R.C.S., Great Northern Hospital.

The following gentlemen passed the required examinations and obtained the diploma in Dental Surgery at a meeting of the Board on Aug. 1st:—

Gingell, George, Moreton Ongar, Essex.
King, Richard F. H., Newark.
Marsh, Henry, Chester.
Rose, Harry, Albany-street.
Stevens, Mordaunt A. de B. C., M.R.C.S., Paris.
Vasey, Charles Lyon, M.R.C.S., Cavendish-place.

The following gentlemen passed the primary examination in Anatomy and Physiology on July 20th:—

W. J. Heddy, H. B. Blackburn, W. J. Gard, G. E. Keer, and J. S. Wilkins, Guy's; Montague Ford and T. W. F. Gray, Charing-cross Hospital; H. C. M. Gibson, E. M. Redman, and T. G. Vawdrey, University College; J. W. Greenwood, C. G. Johnson, W. S. Mavor, E. Welchman, D. A. Sinclair, and G. E. Wherry, St. Thomas's; F. E. Atkinson, St. Mary's; W. Coulter, Belfast; W. A. Grogono and R. R. Llewellyn, London Hospital; A. Kirkpatrick and R. E. Samuels, Liverpool; H. d'A. Ellis, Charles Lakin, and M. A. Messiter, Birmingham; C. W. Pridmore, Westminster Hospital.

Of the 109 candidates admitted to the primary examination on July 18th, 19th, and 20th, 43 failed to satisfy the Court, and were referred for a period of three months' further anatomical and physiological study.

UNIVERSITY OF LONDON. — The following is a list of gentlemen who have recently passed the Preliminary Scientific (M.B.) Examination:—

FIRST DIVISION. — Thomas Carnelley, Owens College; Claude Douglas, St. George's; John William Eiwes, John Topham Gadsby, Augustus Joseph Pepper, Sidney Philip Phillips, and Samuel David Titmas, University College; Charles Edward Harrison and Joseph Cooke Verco, St. Bartholomew's; John Charles Saunders, Downing College, Cambridge; Alfred Wolff, St. Thomas's.

SECOND DIVISION. — Geo. Ernest Alford, Bristol Royal Infirmary; Alfred Beaver Brown, Sheffield School; Paul Morgan Chapman, Baron Armand De Watteville (M.A.), Charles Walter Godfrey, Lewis John Hobson, Christian Bernard Hunter, Leander Starr Jameson, Charles Coleman Jewell, John Geoffrey Langley, Spencer Le Marchant Moore, George Eames Mounsten, Tennyson Deighton Patmore, Herbert Rich. Octavius Sankey, John Foster Trafford, and George Henry Voelcker, University College; Thomas Robert Hood Clunn, Robert Charles Glib, Cyril Lloyd Jones, and George Hawson Keyworth, Guy's; Edward Marriott Cooke, George Lewis (B.A.), and George Edw. Moore, King's College; Edward Joshua Edwardes, private study; Charles Edward Gosling and Martin Stewart, Queen's College, Birmingham; Joseph Bouch Hutchinson, Liverpool School; Edward Ferrand and Arthur Jermyn London, St. Bartholomew's; Charles Trevelyan Macaulay, St. George's; William James Pickup, Owens College; George Edward Williamson, London Hospital.

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on July 27th:—

Brittin, Frederic G. Morris, Wansford, Northamptonshire.
Clarke, John Clelland, Colmaine, Ireland.
Hartridge, Gustavus, Yalding, Kent.
Norman, George, Stockwell-park-road, Brixton.

On the same day the following gentlemen passed their first professional examination:—

Robert Birch, King's College; Matthias Groves, F. W. Strugnell, and G. S. A. Waylen, St. Bartholomew's; Frank Langley, Guy's; Allan Maclean, St. Thomas's; James Pimlott Oates, Birmingham General Hospital; Edmund Venning, University College.

ROYAL COLLEGE OF SURGEONS IN IRELAND. — At the quarterly examination held on July 22nd, 24th, 25th, 26th, and 27th, the following gentlemen obtained the licence to practise Surgery:—

John G. Allen, Frederick A. Bernardo, Robert Bernal, John N. Bredin, Thomas H. Browne, Thomas Drapes, Henry E. Evans, Christopher Fleming, Michael Fitzgerald, Otho Galgey, Francis B. Hannan, James A. Hanrahan, Richard Henry, Henry Heyward, Andrew Irwin, John C. Lawrenson, Edmond A. Lucas, Christopher MacNally, Ayres Moore, Herbert M. Nash, James S. Niven, Richard W. O'Donnell, Nicholas S. O'Farrell, William H. Ovenden, George A. Raverty, Stephen Raverty, Laurence J. Ryan, Harvie Scott, William A. Sharpe, Philip H. Sherrett, Hayman Thornhill, Charles P. Turner, Frederick W. Warren, Patrick S. Wigmore.

At a meeting of the Court of Examiners held on July 11th and following days, the undermentioned gentlemen passed their primary examinations in Anatomy, Physiology, and Materia Medica:—

Frederick A. Bernardo, William J. Brizzel, William Brown, Philip F. Casey, Thomas Drapes, Robert S. Eyre, David Fennell, Richard M. Freeman, William Greer, James C. Hamilton, Joseph K. Healy, Richard Henry, James R. M'Inerney, William L. Mackesy, Miles M'Swiny, Nathaniel Mayne, William H. Middleton, Patrick Mulcahy, Edward E. Mulock, Dawson Nesbitt, James S. Niven, Joseph John Nolan, Lyster A. Nolan, Richard W. O'Donnell, John Prendergast, Frederick A. Pope, Laurence J. Ryan, Philip H. Skerrett, John R. Sutton, Barre L. Tandy, William Taylor, Hayman Thornhill, Arthur Woodiock, Joseph R. Wolfenden, Frederick Young.

THE following gentlemen have received Government grants for efficient vaccination:—Mr. R. T. Leeming, of Kendal, £28 4s.; Mr. J. Kilshaw Kenyon, 3rd district of the Highworth and Swindon Union, £5 5s.; and Dr. Newham, 3rd district of the Winslow Union.

ADULTERATION OF FOOD, DRUGS, &c. — Lord Eustace Cecil has given notice that he will bring this subject before Parliament early next session, should the Government not take it in hand either as a separate measure or by the introduction of clauses for the prevention of adulteration into the new Sanitary Bill.

SMALL-POX IN HAMBURG.—The following statement has appeared in the Hamburg newspapers with reference to the prevalence of small-pox. The particulars merely relate to the patients admitted into the hospitals, and do not therefore give the statistics of the epidemic:—Patients admitted in January, 311, deaths 7; in February 419, deaths 18; in March 471, deaths 38; in April 601, deaths 39; in May 637, deaths 65; in June 834, deaths 85. The total number of deaths reported as having occurred in Hamburg during the like period is as follows: January, 62; February, 107; March, 160; April, 226; May, 400; June, 466: making a total of 1421 deaths during a period of six months.

PROGRESS OF THE CHOLERA.—A "Lombard" telegram states that the cholera epidemic has crossed the Prussian frontier. The first case has occurred at Königsberg, where a Polish Jew was attacked by it and died. On the same day two other persons were reported ill, one of whom died. No further reports have arrived yet. The reports from Russia are unsatisfactory. On the 25th of July, 595 cholera patients were in the hospitals at Moscow, and the same day 102 fresh cases were reported. Up to that date there had been 3125 cases, of which 1428 proved fatal, in addition to those cases which may not have been reported to the authorities. At the same period there were 103 patients in Riga, and 55 new cases, with 48 deaths on the same day.

Medical Appointments.

BELCHER, J. S., M.D., has been appointed Medical Officer to the Workhouse Infirmary, St. George-in-the East.

BOLAND, W. H., L.R.C.S.I., has been appointed Senior Assistant Medical Officer to the Ebbw-vale Iron Works, Monmouthshire, vice A. A. Kidger, M.R.C.S.E., appointed Resident Medical Officer to the Infirmary, Newport, Monmouthshire.

CARTER, E. H., M.R.C.S.E., has been appointed Medical Officer for the 1st and 3rd Districts of the Chelmsford Union, vice O. Copland, M.R.C.S.E., resigned.

CARTER, Mr. G. C., has been appointed Medical Officer and Public Vaccinator for the Ranboldswhyke District of the Westhampnett Union, Sussex, vice Arnold, resigned.

DICKSON, J. T., M.A., M.B., M.R.C.P., has been appointed Physician to the Infirmary for Epilepsy and Paralysis, Charles-street, Portman-square.

MACDONALD, Mr. J., has been appointed Surgeon for the West District, Royal Infirmary, Dundee, vice A. C. Campbell, M.B., M.C., L.R.C.P.Ed., appointed an Attending Surgeon.

MAWSON, R. T., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer for the Howden District of the Auckland Union.

MASKELYNE, Mr. G. H., has been elected Medical Officer to the Buckland District of the Faringdon Union, Berks, vice Mr. J. H. Walters, resigned.

MITCHELL, H., M.D., has been appointed Medical Officer for the Irby District of the Wigton Union, Cumberland, vice J. Galloway, M.R.C.S.E., resigned.

MOORE, Mr. A. W., has been appointed Accoucheur to the South-Western Provident Dispensary, Pimlico, vice C. Bevan, M.D., resigned.

MORGAN, G. B., M.R.C.S., has been appointed House Surgeon to the Royal Free Hospital, Gray's-inn-road.

MORRILL, A. H., M.R.C.S.E., has been appointed Resident Surgeon to the Branch Dispensary of the Cheltenham General Hospital and Dispensary, vice J. Humphreys, M.R.C.S.E., resigned.

MURRAY, J., M.D., M.R.C.P.L., has been appointed Assistant-Physician to the Hospital for Sick Children, Great Ormond-street, vice J. F. Payne, M.B., M.R.C.P.L., resigned on being appointed Assistant-Physician to St. Thomas's Hospital.

O'FARRELL, G. P., M.B., B.A., M.R.C.S., has been appointed House-Surgeon to St. Peter's Hospital for Stone, vice S. G. Sloman, jun., M.R.C.S., resigned.

OWEN, Mr. E., has been appointed Assistant-Surgeon to St. Mary's Hospital, Paddington.

PEIRCE, F., M.B., has been appointed Medical Officer for the Upton District of the Wirral Union, Cheshire, vice J. Snape, L.R.C.P.Ed., resigned.

STONEY, H. B., M.B., L.K.Q.C.P.I., has been appointed Certifying Factory Surgeon for the District of Abbeyleix, Queen's County, vice Wm. J. Croly, L.R.C.P.Ed., L.F.P. & S. Glas., deceased.

STOTHARD, J., M.R.C.S.E., has been appointed Surgeon to the Hull and Scalcoates Dispensary.

SWANZY, H. R., M.B., L.R.C.S.I. (formerly Assistant to Professor von Graefe, Berlin), has been appointed Surgeon and Hon. Secretary to the National Eye and Ear Infirmary and General Dispensary, Dublin, vice J. G. Hildige, L.K.Q.C.P.I., F.R.C.S.I., deceased.

SYMONS, Mr. H. E., has been appointed Demonstrator of Practical Physiology at St. Bartholomew's Hospital Medical School.

THURSFIELD, W., M.D., L.R.C.P.L., has been appointed Medical Officer for District No. 3 and the Workhouse of the Aldridgnorth Union.

WATTIE, C. L., M.B., C.M., has been appointed Resident Assistant Medical Officer to the "Hamadryad" Hospital Ship, Cardiff, vice I. S. Jones, L.R.C.P.Ed., L.R.C.S.Ed., resigned.

WEATHERHOGH, C., M.D., M.R.C.S.E., has been appointed Medical Officer for District No. 4 of the Westbury-on-Severn Union.

WHITWELL, F., M.R.C.S.E., has been appointed Medical Officer to the Shrewsbury Workhouse of the Amalgamated Atcham and Shrewsbury Unions.

WILKINSON, J., M.R.C.S.E., has been appointed a Surgeon to the Hull and Scalcoates Dispensary.

WILLIS, W. E., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer for the Northern District of the Parish of Great Yarmouth, vice S. J. P. Stafford, M.R.C.S.E., resigned.

Births, Marriages, and Deaths.

BIRTHS.

BAKER.—On the 30th ult., at Market-place, Thirsk, Yorkshire, the wife of Robert Baker, M.D., of a son.

DALTON.—On the 26th ult., at the Royal Dockyard, Pembroke Dock, South Wales, the wife of Staff Surgeon W. Ruffell Dalton, R.N., of a son.

JEFFREYS.—On the 29th ult., at Chesterfield, the wife of Richard Jeffreys, M.R.C.S., of a son.

SMITH.—On the 31st ult., at Portugal-street, Grosvenor-square, the wife of Dr. Heywood Smith, of a daughter.

MARRIAGES.

MACLEAN—HINE.—On the 4th ult., at St. Mary's Church, Nottingham, John Campbell Maclean, M.B., C.M., of Swindon, to Emily, third daughter of G. C. Hine, Esq., of Regent-street, Nottingham.

MILLER—FORDYCE.—On the 20th ult., at Brackley Castle, Aberdeenshire, Alexander Gordon Miller, M.D., F.R.C.S.E., of Edinburgh, to Jessie, third daughter of the late Captain Alex. Dingwall Fordyce, R.N., of Brucklay and Culsh.

RICHARDS—SOUTHEY.—G. Pickering Richards, L.R.C.P.Ed., L.S.A.L., L.M., to Mary Ann Southey, of Bury-street, St. James's.

ROSSER—HOLMES.—On the 27th ult., at Holy Trinity Church, South Tottenham, Walter Rosser, M.D., of Glenalmond, Perth, to Elizabeth Sarah, only daughter of James Holmes, Esq., of Tottenham-green, Middlesex.

TUCKER—BENNETT.—On the 27th ult., at Brutou, Somerset, J. Dunning Tucker, Surgeon, of Great Marlborough-street, London, to Mary, eldest daughter of T. O. Bennett, Esq., of Brutou.

DEATHS.

ANDERTON.—On the 1st inst., H. Anderton, L.R.C.P.Ed., F.R.C.S.E., of New Ferry-park, Birkenhead, aged 81.

CROWFOOT.—On the 26th ult., W. J. Crowfoot, M.D., of Brighton, formerly of Beccles.

GODFREY.—On the 25th ult., at Melville Hospital, Chatham, C. R. Godfrey, M.R.C.S.E., Surgeon R.N., aged 41.

HARRISON.—On the 30th of June, at Funchal, Madeira, G. Wm. Harrison, M.R.C.S.E., formerly Resident Medical Officer at Mercer's Hospital, Dublin, and the Borough Hospital, Birkenhead, and late of Alton, Hampshire, aged 28.

SHIPMAN.—On the 25th ult., Robert Shipman, F.R.C.S.E., of Grantham, aged 54.

WRIGHT.—On the 22nd ult., E. W. Wright, M.D., of Shipston-on-Stour, aged 60.

INSTRUCTIONS FOR VACCINATORS UNDER CONTRACT.

THE following revised "Instructions to Vaccinators under Contract" have just been issued by order of the Lords of Her Majesty's Privy Council.

1. Except so far as any immediate danger of small-pox may require, vaccinate only subjects who are in good health. As regards infants, ascertain that there is not any febrile state, nor any irritation of the bowels, nor any unhealthy state of skin; especially no chafing or eczema behind the ears, or in the groin, or elsewhere in folds of skin. Do not, except of necessity, vaccinate in cases where there has been recent exposure to the infection of measles or scarlatina, nor where erysipelas is prevailing in or about the place of residence.

2. In all ordinary cases of primary vaccination, if you vaccinate by separate punctures, make such punctures as will produce at least four separate good-sized vesicles, not less than half an inch from one another; or, if you vaccinate otherwise than by separate punctures, take care to produce local effects equal to those just mentioned.

3. Direct care to be taken for keeping the vesicles uninjured during their progress, and for avoiding afterwards the premature removal of the crusts.

4. Enter all cases in your register on the day when you vaccinate them, and with all particulars required in the register up to column 9 inclusive. Enter the results on the day of inspection. Never enter any results which have not been inspected by yourself or your legally qualified deputy. In cases of primary vaccination, register as "successful" only those cases in which the normal vaccine vesicle has been produced; in cases of revaccination, register as "successful" only those cases in which either vesicles, normal or modified, or papules surrounded by areolæ, have resulted. When the vaccination of an unsuccessful case is repeated, it should be entered as a fresh case in the register.

5. Endeavour to maintain in your district such a succession of cases as will enable you uniformly to vaccinate with liquid lymph directly from arm to arm; and do not, under ordinary circumstances, adopt any other method of vaccinating. To provide against emergencies, always have in reserve some stored lymph—either *dry*, as on thickly-charged ivory points, constantly well protected from damp; or *liquid*, according to the method of Dr. Husband, of Edinburgh, in fine, short, uniformly capillary (not bulbed) tubes, hermetically sealed at both extremities. Lymph, successfully preserved by either of these methods, may be used without definite restriction as to time; but with all stored lymph caution is necessary, lest in time it have become inert, or otherwise unfit for use. If, in order to vaccinate with recent liquid lymph, you convey it from case to case otherwise than in hermetically sealed capillary tubes, do not ever let more than eight hours intervene before it is used.

6. Consider yourself strictly responsible for the quality of whatever lymph you use or furnish for vaccination. Never either use or furnish lymph which has in it any, even the slightest, admixture of blood. In storing lymph, be careful to keep separate the charges obtained from different subjects, and to affix to each set of charges the name, or the number in your register, of the subject from whom the lymph was derived. Keep such note of all supplies of lymph which you use or furnish, as will always enable you, in any case of complaint, to identify the origin of the lymph.

7. Never take lymph from cases of revaccination. Take lymph only from subjects who are in good health, and, as far as you can ascertain, of healthy parentage; preferring children whose families are known to you, and who have elder brothers or sisters of undoubted healthiness. Always carefully examine the subject as to any existing skin disease, and especially as to any signs of hereditary syphilis. Take lymph only from well-characterised, uninjured vesicles. Take it (as may be done in all regular cases on the day week after vaccination) at the stage when the vesicles are fully formed and plump, but when there is no perceptible commencement of areola. Open the vesicles with scrupulous care to avoid drawing blood. Take no lymph which, as it issues from the vesicle, is not perfectly clear and transparent, or is at all thin and watery. From such a vesicle as vaccination by puncture commonly produces, do not, under ordinary circumstances, take more lymph than will suffice for the immediate vaccination of five subjects, or for the charging of seven ivory points, or for the filling of three capillary tubes; and from larger or smaller vesicles take only in like proportion to their size. Never squeeze or drain any vesicle. Be careful never to transfer blood from the subject you vaccinate to the subject from whom you take lymph.

8. Scrupulously observe in your inspections every sign which tests the efficiency and purity of your lymph. Note any case wherein the vaccine vesicle is unduly hastened or otherwise irregular in its development, or wherein any undue local irritation arises; and if similar results ensue in other cases vaccinated with the same lymph, desist at once from employing it. Consider that your lymph ought to be changed if your cases at the usual time of inspection on the day week after vaccination, have not, as a rule, their vesicles entirely free from areolæ.

9. Keep in good condition the lancets or other instruments which you use for vaccinating, and do not use them for other surgical operations. When you vaccinate, have water and a napkin at your side, with which invariably to cleanse your instrument after one operation before proceeding to another.

N.B.—Supplies of lymph are furnished to medical practitioners on personal application at 3, Parliament-street, London, S.W., between the hours of 12 and 2; or by letter (unstamped) addressed to the Medical Officer of the Privy Council, 3, Parliament-street, London, S.W.

Notes, Short Comments, and Answers to Correspondents.

SCIENTIFIC HANGING.

In the carrying out of the sentence of capital punishment by hanging in this country, we have more than once reported painful examples which have occurred of "How not to do it." It remained, however, for the authorities of the Richmond Prison in Dublin, at the execution of Andrew Carr about a year since, to demonstrate that it was possible to *overdo* it. This unfortunate man, whose weight, it appears, was 158 lb., was provided at his execution with a drop of 14 feet. As a result of this, his head was completely severed from his body. The facts of the case and the causes which led to this misfortune have been investigated by Mr. Lentaigne, Inspector-General of Prisons for Ireland; assisted by Dr. Hatchell, Inspector of Lunatic Asylums; and Mr. O'Rorke, a Dublin magistrate and ropemaker. These gentlemen all agree that the cause of the accident was the want of *elasticity* in the rope used on the occasion, which was not sufficiently twisted in the manufacture, and was therefore incapable of yielding to the suddenly imposed weight of the suspended criminal. "Hence," says the report, "the neck of the convict being dislocated by the fall, the rope, being a fixed and unyielding substance, cut through the muscles of the neck, thus separating the head from the body." Dr. Minchin, the surgeon of the gaol where the execution took place, was induced to recommend a drop of 14 feet in consequence of an opinion of the Rev. Professor Haughton which he had read in the *Philosophical Magazine*. To make their inquiry complete, Mr. Lentaigne and his colleagues thought it advisable to obtain the views of Professor Haughton on the matter, and the latter gentleman accordingly embodied his opinions in a letter, which contains much practical and useful information. Dr. Haughton alludes to the execution of two convicts, both heavier men than Carr, who were provided with a drop of 14 feet 6 inches in one case, and 16 feet in the other; but, as the ropes used were of an elastic description and thoroughly twisted, the shock, "instead of being applied suddenly, was brought to bear on the neck by a gradually increasing strain," and although death was rapid, the skin of the neck was not even broken. Dr. Haughton says: "In conclusion, I would observe that the long drop has been used in Ireland from time immemorial, with the humane object of shortening the sufferings of the criminal; and the records of Irish executions show that the drop has ranged from 9 feet to 16 feet. In English executions the drop ranges from 2 feet to 3 feet only; and I am informed by Mr. Gibson, surgeon to Newgate, that during his long experience he has known but one case in which death was rapid (case of Müller, executed for murder of Mr. Briggs in North London Railway). Taking the foregoing circumstances into account, I am fully of opinion that Mr. Minchin was justified in making practical use of the old stoic maxim for the alleviation of pain mentioned by Cicero:—

"'Si longus, levis; si gravis, brevis.'"

Mr. A. Douglas (Liverpool) had better consult his usual medical attendant. It is contrary to our practice to return private answers.

TONGUE-SUCKING.

To the Editor of THE LANCET.

SIR,—Your correspondent, "Warra," writes to ask for remedies in a very obstinate case of tongue-sucking. I fear I have no suggestion of any value to offer; but perhaps if something were given to the child to suck—something like an infant's coral,—he might in time unlearn the bad habit he has contracted.

My chief object, however, in addressing you is to suggest that perhaps it may be from such obstinate cases of tongue-sucking as this that some at least of the examples of hypertrophy of the tongue take their origin. Prolapsus linguæ is not a common affection; but, when it occurs, it is always, I believe, traced to a very early period of life; and the description which "Warra" gives of his little patient's tongue, as "protruded" and looking "like a pulsating tumour," suggests that the same conditions carried a few degrees further might easily give rise to a veritable hypertrophy. I am not aware that any satisfactory explanation of prolapsus linguæ has ever been offered. It would be interesting, therefore, if your correspondent would keep my suggestion in view, and communicate at some future time the further history of his patient.

Yours faithfully,

Curzon-street, Mayfair, July 25th, 1871. W. FAIRLIE CLARKE.

To the Editor of THE LANCET.

SIR,—Two little patients under my care, belonging to the same family, aged five and three, have more or less since weaning been addicted to tongue-sucking. In their case it is practised during sleep, with the tongue either between the teeth or protruded beyond the lips; the jaws are in motion, as in the act of sucking the breast, but I doubt whether the saliva is swallowed. It is very annoying to an unsound sleeper occupying the same apartment. It appears to be accompanied with a feeble digestion in one of the boys, and is much aggravated when indigestible things, such as even the seeds of ripe gooseberries and raspberries, are eaten, and is also followed by an eczematous eruption of the skin. Both the boys suffer from ascarides, which I have been unable thoroughly to dislodge. It is not unlikely that the tongue-sucking is more or less the result of reflex irritation from this cause. Can any of your readers suggest an efficacious mode of ridding the system of these troublesome little parasites? I believe their habitat is not so low down in the intestinal canal as is generally supposed; but when dislodged from their nidus and in the rectum, their presence is felt.

Yours faithfully,

July, 1871. J. W.

THE PROGRESS AND CONDITION OF INDIA.

WE extract the following observations from an official statement just laid before Parliament, exhibiting the moral and material progress and condition of India during the year 1869-70. The nearly universal drought by which the year 1868-69 will long be remembered was happily not repeated in British India in the year under review; but in Central India and in the North-West Provinces the early rains were scanty, and there was for some time a good deal of anxiety as to the future. In the Punjab, also, the year was throughout one of scarcity and distress, though not of actual famine; and in every province where the famine prevailed in 1868-69, fever, and to a small extent cholera, found easy victims in a people already weakened by the trials they had passed through. In the large collection of independent States of Rajpootana, however, the year 1869-70 was hardly less disastrous than its predecessor. The greater scarcity which had there prevailed was followed by disease of a more violent character, and, to crown the misfortunes of the people, locusts in large numbers visited the Province, and destroyed the growing crops. Years must elapse before the deplorable condition of Marwar and that of other districts can be expected to recover from their two years' sufferings.

Mr. Bartleet (Birmingham) will oblige by sending his case for our hospital records.

UNQUALIFIED ASSISTANTS.

To the Editor of THE LANCET.

SIR,—The "unqualified" assistants have found at last an advocate, but unfortunately of no pretensions, as he calls himself "only" a General Practitioner. The advocacy appeared in your impression of the 15th inst. The writer goes beyond the mark in assuming the sanction of the Medical Council to their practising, and all must admit that he is beside himself in his wholesale condemnation of the qualified. As I read the case, the Medical Council had to consider an offence charged against Mr. W. H. Kempster for permitting "one William Goodson, an unqualified person, to practise under colour of his name, and signing certificates of the death of persons whom he had not seen"; and they neither approved nor disapproved of the custom of having unqualified assistants, because under the circumstances it would have been as much out of their way as was the tirade against the qualified men. He next institutes a comparison between the unqualified practitioner and the student, and he clenches his remarks by citing Royal Navy orders for their employment. Times of emergency are no rule, else, as with the Communists, the village barber may be used on all these occasions set forth by "our advocate" in the arresting of hæmorrhage, quieting drunken brawls, cooling the temples of hysterical women, or the taking a turn when the night bell rings; and, if so, surely a practitioner whose practice values on an average less than £300 a year has no more right "than a frog has fur a side-pocket" to have the services of either kind of assistant to do the more menial part of the work. The law recognises only qualified men; but no law would ever prohibit students, as students, from practising, as they do so with a higher purpose in view, and under the guidance of their teachers and professors; while the unqualified man makes that his end in nearly every case, either because he cannot qualify or else never intended to do so. I was a qualified assistant for upwards of five years; but no "false sentiment" prohibited me from doing everything that was required, from the washing the bottles to the delivery of the bills; and if I occasionally watched the "waggles of an entomostracon," it seemed all the more to humble my aspirations before the great God who made us all. Not so my principals. One of them had lately "set up" and everything was considered for effect, the false sentiment in his case being, that in order to succeed with the public, and to stand high with his neighbour practitioners, he must "fig" out "buttons" and keep an assistant. No one denies that unqualified men may, and often do, excel as accoucheurs men who have just *passed*; but this only goes to show that our educational and examining boards are in the right tack in introducing more practical work in their teachings and examinations; and although good men may be found in their ranks, and compelled by adverse circumstances from qualifying, still many are notorious as ignorances, and but for them qualified assistants would not have to suffer so many indignities from their better-off professional brethren, as well as from the general public. It is the frequent snubbings out of doors, and the hybrid position in-doors, that make the better man long to be on his own account; while the unqualified are satisfied, having attained their ultimatum, and hence the former may be a little unaccommodating at times. Clubs are alive to the fact that the Poor Law requires the services of qualified assistants, and the district visitors are beginning to recommend the same; but the unqualified will have the preference with many medical men, as there is less danger of their opposition whenever a separation ensues. The very men—the general medical public—who cry out against the monopoly of the various corporations in granting licences are also the ones who will see that they share not the monopoly of their practices with men who in most cases have not had *quid pro quo*.

I am, Sir, your obedient servant,

July, 1871. A BALD-HEADED GENERAL PRACTITIONER.

JOHN HUNTER'S HOUSE AT EARL'S COURT, KENSINGTON.

AN admirable paper on this subject, from the pen of Mr. Frank Buckland, appeared in *Land and Water* on July 8th, which we purpose noticing shortly. Meanwhile we may say that the fact of so many relics still remaining of this great man is most interesting.

MEDICAL REWARDS.

To the Editor of THE LANCET.

SIR,—You alluded to the hardship in Mr. Pemberton's case at Carlisle; but I think you will agree with me that my case is even harder. I had had a hard day's work to and from Birkenhead; and as I entered Lime-street station at Liverpool at 11 P.M., I found a soldier had fallen down insensible. I offered my services, which were freely accepted by the railway officials; but, as the poor fellow was dead, I was of little use. The reward, however, which my good intentions have received is in the shape of a request to attend the inquest at Liverpool—that is, that after a week's exceptionally severe travelling, I shall have another railway journey to and from Liverpool for one guinea!

Yours, &c.,

August 2nd, 1871. LAWSON TAIT.

RIVER POLLUTION.

At the annual meeting of the Society for the Prevention of the Pollution of the River Dee and its tributaries, held at Chester last week, under the presidency of the Rev. Canon Kingsley, statements were made as to the impurity of the river Alyn, one of the Dee feeders, which show how great is the want of some general controlling power in respect of rivers and streams in this country. Tar and petroleum and other manufacturing refuse of the most noxious character are allowed to flow into the Alyn to such an extent as to render the water not only unfit for the refreshment of man or beast, but also to create a stench which is at times almost unbearable. It is also said that at Rossett, where the people are entirely dependent upon the water of the Alyn, several cases of cholera formerly occurred, which were encouraged by the impurity of the water. Analysis had, moreover, shown the water to be exceedingly noxious; and the unfortunate part of the business is that, supposing an application for an injunction to restrain the manufacturers from further pollution is successful, it will take years before the effects of the past are entirely got rid of, so saturated are the banks and bed of the river with noxious matter. The more we know of river pollution, its causes and effects, the more evident it is that the only satisfactory way of dealing with the subject is that recommended in the last Report of the Rivers Pollution Commission—namely, the establishment of a central authority or Board, having control over all the rivers and streams of the country.

Mr. C. Jeaffreson.—With pleasure, if the facts are put concisely.

CURIOUS CASE OF CONGENITAL MALFORMATION.

To the Editor of THE LANCET.

SIR,—As it is proposed to publish a fuller notice of Dr. Squarey's case of three sisters with congenital absence of the uterus, referred to in your journal of last week, I beg to suggest that some inquiry should be made into the history of similar and previously published cases, so as to avoid the not uncommon mistake of bringing forward cases as new which have been already, though perhaps somewhat imperfectly, recorded. The case, it may be as well to mention, is not in any way entitled to be looked upon as unique; for a case of "Congenital Absence of the Uterus in two Sisters," both of whom were unfortunately married, occurred last year in the practice of Dr. Phillips at Guy's Hospital (*Brit. Med. Journal*, June 19th, 1870, p. 630); and in my paper "On the influence of Sex in Hereditary Disease" (*Med. Chir. Review*, July, 1863, p. 457), I have referred to "the total absence of the uterus in three out of five daughters in the same family." In this last-mentioned case, which occurred in the practice of Dr. R. Nelson, of New York, two of the three sisters had been *twice* married (*American Monthly Journal* for June, 1861). As the whole subject of the collateral inheritance of disease or defect (which necessarily in this instance could not have been directly transmitted) has been very fully discussed in my papers on Hereditary Transmission, I would only remark, in conclusion, that the value of such cases, when recorded, depends on the extent to which the family history has been carefully investigated and that without this much-desired information it could not be expected that a case like that referred to above would ever be generally looked upon as any thing more than a curious freak of nature, for which it must be impossible to account.

I am, Sir, yours, &c.,

Park-place, Upper Baker-street, Aug. 1st, 1871. WM. SEDGWICK.

Mr. John Russell, (Neath.)—No doubt the medical certificate of the *cause* of death gives the ordinary registration certificate of the *fact* of death a value for insurance purposes which it would not otherwise have. And as the medical certificates are given gratuitously, doubtless the profession loses annually not a few fees which insurance offices would be willing to pay for information as to the cause of death now obtainable in the death certificates, and for which the registrars get the fees. This is certainly not an equitable state of things, and there would seem to be no reason why, as the registrar is paid a fee for registering the *fact* of death, the practitioner who certifies its cause should not get a fee also.

D. W.—We will endeavour to give it early insertion.

INCESSANT HICCUP.

To the Editor of THE LANCET.

SIR,—If your correspondent, "W. A. D.," has not yet succeeded in curing the case alluded to in his letter in your issue of July 22nd, he would do well to try the following draught, to be taken at bedtime:—Bromide of potassium, one drachm; tincture of sumbul, half a drachm; tincture of hyoscyamus, one drachm; camphor water, one ounce and a half. It effectually cured a hiccup of over twelve months' duration in a gentleman whom a mere accident led to consult,

Yours obediently,

Dowlais, July 25th, 1871. R. PARR.

To the Editor of THE LANCET.

SIR,—In reply to "W. A. D.," I would suggest the application of a blister to the origin of the phrenic nerve, from having met with a similar case that was thus immediately and permanently relieved, after having unsuccessfully tried a great variety of remedies,

Yours truly,

Dover, July 26th, 1871. ALLEN DUKE.

To the Editor of THE LANCET.

SIR,—The best means of stopping hiccup is to hold up your arms above your head for a minute or two. It is more effective in a standing than in a reclining position.

Yours truly,

Manchester, July 27th, 1871. E. WIRE.

AGES OF SOLDIERS.

A WAR-OFFICE return gives the following results out of a force amounting to 180,410. Of this number, 5264 are returned as under 18 years of age; 13,697, 18 to 19; 15,428, 19 to 20; 40,104, 20 to 25; 39,175, 25 to 30; 37,141, 30 to 35; 16,874, 35 to 40; 3085, upwards of 40 years of age; 41, age not known. In the financial years 1870-71, 32,295 recruits were passed into the service, and 13,000 men were discharged therefrom.

THE PHARMACY ACT.

MR. SIMON declares that the power which for the public protection the 2nd section of the Pharmacy Act vests in the Pharmaceutical Society, to prescribe proper regulations for the keeping, dispensing, and selling of poisons, was by an accidental oversight in legislation given to the Society as a whole, and not to the Council; but the omission to make these regulations is a breach of the implied contract under which the Legislature in 1868 gave powers and privileges to the Society, and he calls the attention of the Lords of the Privy Council specially to the fact.

Dr. A. E. McRae.—We shall be glad to publish our correspondent's letter with his name attached. Such a letter should not be anonymous.

MURPHY ANNUITY FUND.

Third List of Subscriptions received.

	£	s.	d.
Dr. Waggett	1	1	0
Dr. Russell Reynolds	5	5	0
Dr. English	0	10	0
Dr. R. Groom	5	0	0
Dr. W. Ord	1	1	0
Dr. Chalk	1	1	0
J. Myers, Esq.	1	1	0
Dr. Nash	5	0	0
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The subscription-list will be closed on the 15th inst., and the annuity will be at once purchased. Those gentlemen who have not sent their promised subscriptions to Dr. Arthur Farre are requested to do so at once.

INFANTRY EQUIPMENTS.

ACCORDING to a late statement of Sir Henry Storks in the House of Commons, there appears to be no doubt that the new valise equipment has afforded very general satisfaction to the army. The troops have given it a long and very extended trial, and it has stood the test. On the other hand, the reports of the knapsack proposed by Lieut.-Colonel Carter, after similar trial, have not been so satisfactory, and the Duke of Cambridge is rightly opposed to any further trials of it being made.

THE communication of *Mr. Alfred Newman* (Birmingham) shall have our attention.

ON REVACCINATION.

To the Editor of THE LANCET.

SIR,—The following remarks, in a condensed form, may possibly be of interest at the present moment.

I have lately revaccinated nearly 300 persons. Of these the greater number were adults, but over 100 were between twelve and seventeen years of age. About 25 were under twelve years old; but these children were all insufficiently protected, in two cases no marks from the infantile operation being present, although the mothers assured me they had "taken well." In these two cases nearly perfect vesicles resulted from the second operation. My notes clearly show that the *size* of the primary cicatrix was the guide by which the success of the secondary operation could be diagnosed. The larger the scar from the infantile operation, the less effect, as a rule, would be obtained from revaccination.

In about 170 cases good results were obtained, fairly sized vesicles occurring; in all considerable local inflammation being excited, and in most tenderness of the axillary glands being complained of. In 10 cases severe inflammation ensued, and great constitutional disturbance came on, and in 2 cases erysipelas resulted. These two patients were over seventy years of age, and were revaccinated at their own request, as they had to go to London. They both recovered under the usual treatment. The remaining cases, about 100, succeeded in a less degree, some half-dozen hardly taking at all, although the operation was repeated within a month. In about 8 other cases the operation was, however, repeated with success, and in one case a third operation produced two spurious vesicles. In one batch of cases I adopted the plan suggested by one of your correspondents—viz., mixing the contents of a tube with three or four drops of pure glycerine (as I was short of lymph), and good results were obtained.

My supply of lymph was, whenever practicable, procured direct from the arm of an infant; but this being a widely scattered district, I was dependent chiefly on lymph preserved in tubes; and here I must, with all deference, differ from Dr. Farquharson, as my experience directly contradicts his. For the last half-dozen years I have used no other means of preserving lymph, and have every reason to be gratified with the results obtained. The mode of using the tubes has within the last week or two been so ably described in your journal that it would be useless my adding to the remarks of your correspondents. I was compelled to trespass greatly on the kindness of the National Vaccine Department; but in no instance was I disappointed with the results from the lymph in the tubes so obtained.

My method of performing the operation is now invariably by "scratching," and I am convinced, after more than ten years' experience as a public vaccinator, that no other means is half so successful in procuring good results. Dr. Stevens, the present inspector of this district, first induced me to adopt the plan (I previously having "punctured" the arm), and the result soon showed itself in my receiving an increased gratuity from Government on the occasion of the next inspection of my district. In this union we have the advantage of possessing a most diligent clerk, who never allows any infant in the union to remain unvaccinated over a certain time without issuing a warning to the parents, repeated very shortly if the child still remains unvaccinated. The consequence is that at the present moment there is no child over four months in my district upon whom the operation has not been performed. Formerly, when residing on the Norfolk coast, for my own convenience, I paid the registrar at the rate of a penny per head for a return for every child born in my district. At the cost of a few shillings I procured a book of forms, specifying name of child and parent, place of residence, and date of birth; the registrar filling them up, and sending them to me once a month. In some of the thickly populated fishing villages, the objection to vaccination used to be so strong that the parents in some cases paid fines on two or three occasions rather than have their children operated upon. In several instances, the moment my back was turned, I found the mothers had attempted to "wash the matter out" with soap-and-water, but, much to their own chagrin, without effect.

I would just add that I am in the habit in primary vaccinations of making four distinct series of scratches on one arm, being careful to well rub in a plentiful supply of lymph; in revaccinations, but two. In four of my cases I used lymph from a perfectly formed *revaccination* vesicle, producing in one case two almost as perfect vesicles as could be desired; but seeing that "the authorities" strongly objected to such lymph being employed, I ceased to use it. One gentleman, aged forty, at his own request, was revaccinated four times within as many months (he previously having been revaccinated at puberty). The first operation produced two spurious vesicles at the fifth day, accompanied by considerable local inflammation; the second, two reddened and irritable pustules at the third day; whilst the third and fourth operations produced merely a little local irritation on the second and third days, but have left no mark behind. I myself, simply for the sake of inducing "disbelievers" to be revaccinated, have within the last ten years revaccinated myself six or seven times, on the last three occasions without any effect.

In conclusion, I can only say that, in my opinion, there will be no "stamping-out" small-pox unless revaccination at puberty be made compulsory. I think, too, that if every public vaccinator were also registrar of births in his vaccination district, it would make a great difference in the number of primary vaccinations. Yours truly,

HENRY J. BUCK, M.R.C.S.,
Cressage, Salop, July 22nd, 1871. Public Vaccinator.

Tyro.—It is better, on the whole, not to do so if the maternal supply be sufficient; if not, it can be supplemented in the way proposed. Take care that the milk is of good quality, and that it is not altered by the heat.

D. M. R.—One is as good as the other.

Inquirer.—We are afraid the holiday is entirely a matter of arrangement. But surely no guardian would object to our correspondent's proposal.

THE request of *Dr. Veale* (Bombay) has been anticipated.

ABUSES OF THE EXAMINATION SYSTEM.

A FEW weeks ago we noticed a chemical paper set at the preliminary examination of the College of Surgeons this Midsummer, and took exception to its character. The following question recently propounded by the Professor at the College of Chemistry is a curiosity in the same line:—

"What do you mean by absolute, latent, and active atonicity? Illustrate your meaning by examples."

It is a question in chemical crotchets rather than in chemical science, demanding not so much chemical knowledge as knowledge of the examiner's fancies. Only by studying a certain book, or by studying in the laboratory of a particular chemist, could the student have prepared himself to answer it.

MEDICAL WORK IN INDIA.

THE extent of the charitable medical work in India may be readily imagined from what we learn of that done in a portion of the Lower Provinces of Bengal. At the three Calcutta hospitals and their branches, and at 155 Mofussil hospitals and dispensaries, we find that the number of patients to whom relief was afforded was close on 600,000, and the list given is not a complete one. 340,000 persons were vaccinated, or 80,000 more than in 1868-69; 1106 lunatics were admitted to the five asylums, of whom 16 per cent. were discharged as cured.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Barnes; Mr. South; Dr. Meryon; Mr. Marshall; Mr. Sedgwick; Dr. J. T. Dickson; Dr. Collyer; Dr. Jagielski; Dr. Corner; Mr. Ridge, Dundee; Mr. Wood, Wexford; Mr. Young; Dr. Eastwood, Darlington; Mr. Bartlett, Birmingham; Mr. Lawson Tait; Mr. Evans; Mr. Reid; Mr. Hardy; Mr. Colman; Mr. Lawrence, Bath; Mr. Hordley; Dr. Hutchinson; Mr. Matthews, Plymouth; Mr. Gretton; Mr. Potter; Mr. Harris, Birmingham; Mr. Barker; Mr. Jessopp; Dr. Cartwright Reed; Dr. Veale, Bombay; Dr. Rabagliate, Bradford; Mr. F. R. Hogg; Mr. Fowler, Karrachee; Dr. Russell, Neath; Mr. Aubrey; Dr. Thompson, Leamington; Mr. Anderson; Mr. Selwood, Winchester; Mr. F. Pratt, Langport; Dr. Hunter, Lowick; Mr. Venman; Dr. Baker, Thirsk; Mr. Cole; Messrs. Curtis and Co.; Dr. Taylor, Derby; Mr. Jackson; Mr. W. Richardson; Mr. Leeming, Kendal; Mr. Monteith; Dr. Maund, Sandown; Mr. Askern; Mr. Kenyon, Wroughton; Dr. Ewens, Cerne Abbas; Mr. Chapple, Kirkee; Dr. Webb, Wirksworth; Mr. Smith, Blackheath; Mr. Sharp, Culien; Dr. M'Coy, Sierra Leone; Mr. R. W. Edis; Mr. Jeffreys, Chesterfield; Dr. Shuttleworth; Mr. Anderton; Mr. Biggs, Welford; Dr. Drysdale; Dr. Stephens, Ilminster; Dr. Bond; Dr. Althaus; Mr. Austin; Mr. Goward; Mr. Barrow, Sutton; Messrs. A. & C. Harston; Dr. Royle; Mr. Carline, Douglas; Mr. Davies, Warlingham; Mr. Hurley, Hendon; Mr. Brett, Dursley; Mr. Axford, Canterbury; Mr. C. Jeaffreson, Newcastle-on-Tyne; Dr. Newham, Winslow; Mr. A. Douglas, Liverpool; Mr. Main; Mr. Moore; Mr. J. R. Raper; Mr. Shepheard; Mr. Wirz, Manchester; Mr. Watson; Mr. E. Carter; Mr. Cole; Mr. Dalton, Pembroke; Mr. Higgs; Mr. Lee; Mr. Puck; Mr. Essor, Port Elizabeth; Mr. Sugden; Dr. Fairclough, Mirfield; Dr. Maskelyne; Mr. J. Merrifield, Plymouth; Mr. Kirkwood, Ballina; Mr. G. Taylor; Mr. Simmonds; Dr. Maclean, Swindon; Mr. Porter, Stamford; Mr. Johnstone, Aylesbury; Mr. Owen; Mr. Cooper; Mr. Calantarients, Scarborough; Mr. J. Dearden, Great Harwood; Mr. Walsham, Broomfleet; Mr. Raven, Canterbury; Mr. Johnson; Dr. Roberts, Manchester; Mr. Symons; Mr. Whitfield; Dr. Waters, Liverpool; Dr. Gerald; Mr. Webb, Coalbrookdale; Dr. Robinson; Mr. Riddle; Dr. Heffernan; Dr. Miller; Tyro; D. W.; An Old Subscriber; G. S. M.; Fusbos; D. M. R.; E. T. A.; A. B. C.; H. S.; One who Wants his Fees; H. H.; Physician; M.B.; Medicus; W. G. S.; M.D.; &c. &c.

North Wales Chronicle, Woodhall's Weekly, Edinburgh Courant, Welshman, Bucks Advertiser, Saunders's News-Letter, Lincolnshire Chronicle, Boston Guardian, Philadelphia Dental Times, Western Daily Mercury, Manchester Examiner, Northampton Herald, Hardwicke's Science Gossip, Monthly Microscopical Journal, Liverpool Daily Post, Staffordshire Advertiser, Lancaster Guardian, Alfreton Journal, and *Nottingham Express* have been received.

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